

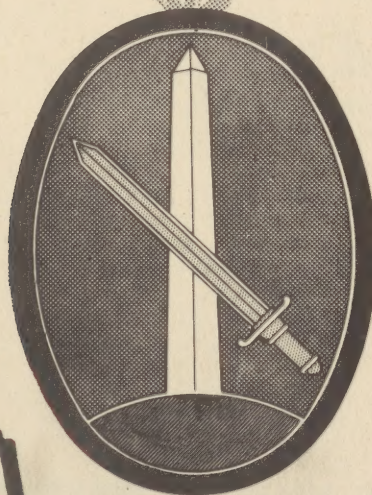
VOLUME 3

REPORT NO. 9

RESTRICTED

# MONTHLY HEALTH REPORT

Military District of Washington



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## INTRODUCTION

This publication presents periodic health data concerning personnel of the Department of the Army in the Military District of Washington. It provides factual information for measurement of increase or decrease in the frequency of disease and injury occurring at each of the posts, camps or stations shown herein.

It is published monthly by the Military District of Washington for the purpose of conveying to personnel in the field current information on the health of the various military installations in this area and on matters of administrative and technical interest. Items published herein do not modify or rescind official directives, nor will they be used as a basis for requisitioning supplies or equipment.

Contributions, as well as suggested topics for discussion, are solicited from Army Medical Service personnel in the field.

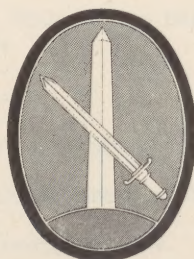
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Surgeon





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# MEDICAL ASPECTS OF ARCTIC WARFARE

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## MEDICAL ASPECTS OF ARCTIC WARFARE

Lt. Colonel Charles B. Henry, MC, Medical Section, Headquarters Army Field Forces, Fort Monroe, Virginia, delivered the following address at the Medical Military Symposium held at Governors Island, New York 4, N. Y., 27 April 1950.

### "Alaska"

Alaska's size, its climate, its terrain and its meager transportation facilities provide serious obstacles to the overland movement of troops and supplies. There are bogs, marshes, swamps and dense vegetation, including small and medium-sized trees. In the summer, most of the terrain is water-soaked and in the winter, although the terrain is frozen, travel is still difficult. There is the added obstacle of snow and the discomfort and danger of the extreme cold. Temperatures in the Yukon Valley drop to  $-60^{\circ}\text{F.}$ , and on occasion, even lower.

The Yukon Valley area, like the Anchorage area, is protected by surrounding mountain ranges as a result of which, the mean winter snowfall is 48 inches. The only drawback in this area is the extreme cold. Here temperatures of  $-50^{\circ}\text{F.}$  to  $-60^{\circ}\text{F.}$ , and not uncommon. A peculiar condition that forms during the long cold winter is the phenomena of ice fog. It consists of ice crystals being suspended in the air in such great quantities that surface visibilities are materially affected. This phenomena occurs in the immediate vicinity of towns and large encampments and over water when the temperature falls to  $-40^{\circ}\text{F.}$ , and the air is calm or nearly calm.

### Training Facilities in Alaska

a. The Army Arctic Indoctrination School, Big Delta, familiarizes officers with the problems involved in military operations in the Arctic.

b. Army Arctic Test Branch, Big Delta, tests the performance of various Army materials and equipment under Arctic conditions.

c. Air Force Indoctrination School at Nome conducts classes of one week's duration during the winter months in Arctic survival. It is intended to transfer this school to the Arctic Center at Big Delta.

d. Air Force Cold Weather Test Branch at Ladd Air Force Base, Alaska, tests new planes, materiel and equipment under Arctic conditions.

### Probable Nature of Arctic Warfare

A small, highly mobile force can very readily operate in the Arctic during the winter months. Even though the road-net is limited and there is no available rail communication, there are numerous frozen rivers and lakes. It is not impossible for advancing troops to rapidly create many trails over which supplies can be transported and sick and wounded evacuated. In fact, unless there is air supremacy, the known lines of communication, such as roads and railways, would very rapidly be made impassable. The Finns demonstrated this principle successfully against the Russians by using well trained ski-troops operating in small patrols.

The division of a fighting force into a main base, advanced base, airhead and fighting area implies the following tactical conceptions:

1. Series of defensive outposts.
2. Offensive ground action by a force proceeding overland in oversnow vehicles.
3. Perimeter defense of a prescribed area, such as an airfield.
4. Airborne attack of an enemy occupied area.

The medical service will be dependent upon:



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1. Intact ground evacuation of sick and wounded to the rear medical installations, utilizing trails, road or rail facilities.

2. In perimeter defense, unit and divisional level evacuation of sick and wounded to an airhead. Further medical evacuation to the rear medical installations will be by air.

The basis principles of medical service under conditions of extreme cold are:

1. Rapid evacuation of wounded.
2. Prevention of cold exposure.
3. Maintenance of adequate supply levels.
4. Provision of heated shelters.
5. Maintenance of morale.

Medical service for a defensive line of multiple outposts with intact lines of medical evacuation to rear installations implies the availability of adequate trails or road-nets, rail and airheads and water transportation. Other than the climatic hazards of intense cold, deep or drifting snow, blizzards, ice-fog and the necessity for maintaining mobility, the procedure of medical evacuation is based upon that of a more temperate climate. Although drifting snow and ice will tend to impede transportation, the frozen condition of the ground permits of greater mobility to the ground troops.

Medical service in an offensive action will require more mobility of supporting medical units, particularly the battalion aid stations and the regimental collecting stations. There should be an adequate number of litter relay posts, so as not to exhaust the litter-bearers by long hauls. Company aid men operating in pairs will limit their duties to emergency medical care and if the tactical situation so permits, marking the location of wounded. Litter-bearers from the battalion aid stations, augmented by regimental collecting station litter-bearers, will endeavor to clear the field of casualties. Oversnow vehicles will be utilized to the fullest extent and as far forward as the tactical situation will permit.

Perimeter defense of a prescribed area, such as an airfield, will require the evacuation of sick and wounded towards the center of the perimeter. The medical installations at this point will have to provide definitive treatment until such time as air evacuation is available.

An airborne attack of an enemy occupied area involves dropping medical department personnel and equipment with the combat troops, setting up an aid station and a clearing station adjacent to an air-head, where medical evacuation will be by air only. Medical service under such conditions will be dependent upon the availability of supplies, development of trails and use of oversnow vehicles, tractor trains or trucks when trail conditions permit. The medical installation at the air-head must be so organized and equipped that definitive treatment can be accomplished.

## Training

Special training is required for all personnel in order to operate safely in the Arctic and Sub-arctic. They must know how to live and operate under conditions of extreme cold and in deep snow. Obviously, the best place to train for winter warfare is in the Arctic, itself. There are factors there which cannot be simulated in the United States, such as:

1. The long hours of darkness of the winter nights.
2. The extreme low temperatures.
3. High windchill.
4. Permanently frozen ground.



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Conditioning of the soldier for cold weather operations is an important part of the training of all units for operations in areas of snow and extreme cold. This training will be directed toward giving him self-confidence in his new environment, dispelling his fear of severe cold, eliminating his carelessness and indifference, teaching him to use his clothing and equipment correctly and safely and developing his maximum physical efficiency for winter operations.

The training of units for cold weather operations must include:

1. Orientation in relation to cold areas with an explanation of what may be expected; this will tend to dispel fears of the unknown.
2. Thorough knowledge in the care and use of cold-weather clothing.
3. Care and maintenance of equipment.
4. Training in the use of skis, snowshoes and ice creepers.
5. Prevention, first-aid and treatment of frostbite, carbon-monoxide poisoning, and snow-blindness.
6. Personal hygiene and sanitation.
7. Knowledge of first-aid.

More emphasis should be placed upon indoctrination and training of the average soldier and less placed upon selection of personnel. However, there may be certain specialized duties involving maximum physical effort associated with prolonged exposure to conditions of severe cold, which will require excellent motivation, mental stability and physical requirements as outlined under the Physical Profile Serial 1. General Kane, who was commanding officer of Task Force "FRIGID", is of the opinion that the geographical choice of personnel is not sufficient. He also feels that a high I.Q. is important, that we over-emphasize physical training and do not stress sufficiently mental training. Environmental and occupational background is important; the man who has lived in the open is more readily adapted to winter training than the city-bred individual; he is more weather conscious. The country boy is generally more resourceful.

There has been considerable research since 1946 as regards the problem of acclimatization, which may be defined as the process of adapting the individual to a different climatic environment. True acclimatization cannot be developed by housing troops in overheated shelters and then piling on layer after layer of heavy insulated clothing when exposed to the elements. Troops that will be exposed in isolated outposts where supply will be difficult should be so acclimated that they can get along with the minimum heat requirement for warming their rations and be trained to depend on the insulation of their cold-weather clothing and sleeping bags to preserve body warmth. However, the morale of the average soldier on the march or in combat will be enhanced if he is provided with a heated shelter at night. He will have facilities other than his body warmth to dry wet clothing and will be able to secure adequate rest and be better prepared to face the bitter cold of the following day. Recent exercises have proved that ground troops with present clothing and equipment can operate actively and effectually at temperatures down to -20°. From a temperature range of -20°F. to -40°F., although troops can affectually operate, this is a dangerous level in which mobility is materially lessened by mechanical failures; also, it demands more effort and time for the care of the individual. Temperatures below -40°F. may be considered critical levels. Very slight errors of judgment may result in a major loss of personnel as cold weather casualties.

All personnel must be trained in the use of snowshoes and skis and at least one platoon of each rifle company (or one rifle company in each battalion) should be composed of the most expert skiers, for use as a maneuver unit. The care of skis and snowshoes is especially important because the soldier is as helpless and ineffectual without them as without his rifle. The following points must be particularly emphasized in training:

1. The difficulty of supply and re-supply.
2. Maintaining adequate distance while on the trail.



# MEDICAL ASPECTS OF ARCTIC WARFARE

3. The proper wearing of Arctic clothing. In this connection, it has been noted that although the Office of the Quartermaster General has provided, in general, excellent cold weather clothing, the instructions in its proper use to the using troops have been meager and sometimes unsound. Leaders must be constantly on the alert to detect violations of clothing and cold weather discipline; as the temperature falls, this becomes increasingly more important. The small unit leader (squad, platoon, company) who neglects this all important item will soon have his unit depleted with cold weather casualties.

Battle wounds in the cold are no different from those sustained in more temperate climates and should be treated in the same manner. Morale is helped by the assurance that the sick and wounded can be rapidly transported from the battlefield to hospitals by airlift, and that for non-transportable cases requiring prompt life-saving surgery, hospitals with highly skilled surgical personnel are available at clearing station level.

First Aid: All winter trained soldiers must be taught how to care for themselves or their comrades when wounded. Wounded men are very susceptible to frostbite and freezing because of the loss of body heat which is attendant upon shock, loss of blood and impaired circulation. Neuropsychiatric problems are all intensified. The intense cold, isolation and monotony may result in severe deterioration of morale. Leadership assumes greater significance than is required under normal conditions; men will respond to an enthusiastic leader willing to share their dangers and discomforts. It is important that troops be properly trained, equipped, and acclimatized so that they approach the Arctic situation without apprehension. Care should be given to provide the proper job assignment for each individual, and if possible, to prevent job monotony by rotating duties within the unit. Every effort should be made to prevent leisure-time monotony by provision of means of amusement. Psychiatric disorders should be treated on an ambulatory basis within the unit and should be evacuated only if severe and truly incapacitated.

## Environmental Hazards

Frostbite: Most cases of frostbite and trench foot can be avoided if soldiers are properly indoctrinated as to the cause, effect and preventive measures necessary to combat these conditions. Control of trench foot and frostbite is primarily a command problem solved by proper indoctrination of troops prior to entering the combat zone and continues follow-up supervision backed by a strict disciplinary policy during the period in which troops are exposed to these conditions. Troops must be made "frostbite and trench foot conscious". Each soldier must be fully aware that both these conditions may be avoided if the proper clothing combinations are strictly adhered to according to the distinct climatic variations. All cases involving the toes, particularly the great toe, generally of both feet were due to the following reasons:

1. Wearing the wrong type of foot-gear in accordance with existing temperature levels such as the shoe-pacs at temperatures below freezing.
2. Not using the necessary sock combination as required by the individual.
3. Ill-fitting foot-gear so that when the sock combination was worn as necessitated it resulted in constriction of the feet and with interference of circulation to the toes.
4. Long periods of immobility where the soldier is compelled to sit in cramped quarters at temperatures below freezing.
5. Troops committed to combat zone under cold-wet conditions may within twenty-four (24) hours find themselves exposed to freezing temperatures of -20°F. This means that they are inadequately clothed as regards foot-gear. There is no shoe at present which embodies the characteristics of protection to both cold-wet and freezing temperatures.

There are as many theories and just as many varied treatments in the care of frostbite and trench foot; however, the only effective means of preventing the loss of man power is that of preventive measures. It is too late after the damage is done, because even in minor cases of frostbite, the days lost are considerable, while in the moderate and advanced phases, it implies permanent disability and absolute loss of key personnel. It is obvious that the dangerous period of commitment of troops is between the temperatures that range 20° above and below the freezing point. Those tem-



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peratures imply the cold-wet period and the period of freezing. In cold-wet slush, water-proof foot-gear with the proper sock combination is essential to prevent "trench foot". However, this cold-wet slush can very rapidly change to ice and a dry-cold environment, thereby making a waterproof shoe inadequate and cold to wear, resulting in "frostbite". Likewise, a Felt boot or Mukluk with the proper sock combination which is satisfactory in dry-cold conditions would be totally inadequate under cold-wet operations.

The terms "frostbite" and "Trench foot" must not be confused as they represent two different clinical entities and there is considerable variation of medical opinion as to their underlying pathology. "Trench foot" is a diagnostic term used to describe the cold injury resulting from prolonged exposure to just above-freezing temperatures. "Frostbite" is the term used to describe the cold injury resulting from exposure to below freezing temperatures either "ground type" or "high altitude type".

Recent exercises have clearly demonstrated that in severe cases of frostbite, there have been relatively long periods of exposure to cold before there is evidence of cold injury; however, this period of time is rapidly decreased with increase of the wind-chill factor. It was also self-evident that freezing takes place without pain, such as freezing the ears while asleep or during a march being unaware of frostbite of the toes, noticing only a sense of numbness during a rest period.

The classification of frostbite follows in a general way that commonly used for burns:

1st degree. The development of a white or yellow frostbite involving the outer layers of the skin without blistering or peeling.

2nd degree. Damage to the superficial layers of the skin is severe enough to produce blistering or peeling, but not severe enough to affect the deep layers of the skin or the subcutaneous tissues.

3rd degree. Damage is sufficient to cause death of thick layers of skin and subcutaneous tissues.

4th degree. Gangrene develops, resulting in the loss of an extremity or a portion of it.

In 1st degree or mild forms of frostbite, the skin assumes a dull yellow color associated with numbness and paraesthesia over the affected area; for example, the cheek. Application of a warm hand or hand or return of the patient to a normal environment will cause normal color to return. The affected areas, however, remain hypersensitive to further exposure to cold for a period of time, in some cases for years.

With 2nd degree frostbite, the onset is essentially the same as in the milder form, but the tissues become firm and digits that are involved become stiff. On thawing, reactive hyperemia develops, associated with pain, especially of a burning order. Shortly after, edema of the part occurs and blisters develop. Portions of skin then peel off easily. The superficial skin layers may appear necrotic or gangrenous. Inexperienced observers often believe that the tissue involvement is much deeper than it actually is. Following care, the superficial skin peels off, leaving normal tissues skin under areas which were thought to be lost.

In 3rd degree frostbite there is more extensive and deeper involvement and in the severest forms, portions of the limbs and digits may be lost completely.

Individuals who have suffered from severe frostbite frequently continue to be highly sensitive to cold for many years and should avoid further exposure.

The following measures for protection are suggested for those who are to be exposed to extreme cold:

1. Clothing should be loose, light, warm and of many layers.
2. The outer layers should be of windproof material.



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3. Extra supplies of warm wool socks should be available, and double layers of gloves, the outer layer to be windproof.

4. The footwear should consist of large, loose-fitting boots or Mukuks worn over several layers of wool socks.

5. The feet should be washed daily, carefully dried and then oiled preferably with whale, seal or olive oil. Skin lesions should be carefully watched for and should be treated promptly. It is vital that no tight bands be worn and that the shoes not be laced tightly. Standing for protracted periods is bad. Beards encourage frostbite owing to moisture from expired air and from surrounding air which freezes and tends to cause frostbite of the face.

### Treatment

In severe cases, frostbite should be considered an emergency problem. It is important that the skin not be rubbed or traumatized in any way. Snow should not be applied. The patient should not continue walking after the feet have been frozen, unless this is unavoidable. Many patients have been made worse by walking for several miles and then entering an overheated room or placing themselves near a stove. If immediate care is not obtainable and if the foot is not too badly involved, it is wise to remove the shoe and socks and place the foot against the skin of a companion, as, for an example, within his shirt. If he can be removed to a hospital, care should be taken to warm the extremity slowly and without exposure to heat greater than natural room temperature. The application of excessive heat locally must be avoided. Warm drinks or an alcoholic beverage may be taken once treatment has begun. Apply a sterile dry dressing.

Lange and Boyd report marked reduction in the amount of gangrene in animals following the use of heparin in frostbite, but this cannot be accepted as a therapeutic procedure without much further investigation.

There should be no haste about operating: Frequently the blackened necrotic skin peels off after a time, leaving normal skin with perhaps use of portions of one or two digits.

**Carbon Monoxide:** The "buddy system" is essential in all cold weather operations, particularly when heating and lighting devices are being used in the presence of restricted ventilation. Tent stoves, hot air heaters and field ranges do not discharge dangerous quantities of carbon monoxide into heated structures; however, faulty operation of such equipment with poor combustion of fuel and careless arrangement of drafts, stovepipes or exhaust stacks, could result in the appearance of combustion products inside heated structures, which could, in turn, produce a serious health hazard. The accepted maximum allowable concentration of carbon monoxide gas in the air in working areas for an eight (8) hour day, six (6) days per week is one hundred (100) parts per million parts of air.

**Conflagration:** A medical plan should be available to take care of the problem of uncontrolled fire. Medical supplies and equipment should be dispersed, caches of food, clothing, tents and sleeping bags should be set-up to take care of the eventuality of total destruction of a camp by fire. At -40°F., men will die if such precautions have not been taken once their base is totally or partially destroyed.

**Snow-blindness:** The exact definition of snow-blindness is difficult, ranging from what appears to be a mere actinic conjunctivitis to any injury resulting to the eye from the action of the sun in the presence of snow. Clear sun in spring produces snow-blindness, but not as quickly as diffused light. No shadows are formed so that the eye is continually straining to detect obstacles, to prevent collision or tripping over snowdrifts, because everything pure white seems to be level.

### Symptoms:

1. Eyes feel as if there were small grains of sand in them.
2. Tobacco smoke will make them water excessively.
3. Become sore with shooting pains. Each attack predisposes to the next one.



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Recurrent attacks gradually weakens the eyesight and tends to produce blindness. No immunity is developed.

## Treatment:

1. Shield the eyes from light. In severe cases bandage the eyes. Constant use of amber glasses in the barracks will prevent it. Smoked glasses are poorest of all. Chlorophyll green is good when the sun is shining, but cuts out too much light and on cloudy days, interferes with clearness of vision. Glasses frost over from eye moisture.

Insect and Rodent Control: During the winter months the insect and rodent problem is of minor importance. However, in the summer the problem becomes acute from a nuisance point of view. Large areas of standing water and sluggish streams are favorable to the propagation of mosquitoes and black flies. In established camps where area control is accomplished, troops are able to live comfortably without resorting to individual protective measures. But in other areas it is necessary for troops to wear head nets and make use of standard repellents and insecticides.

## Treatment and Evacuation of Casualties:

A man who is wounded in the Arctic is in grave peril of freezing. Inactive because of his wounds, wet with his own blood, suffering from shock, he falls an easy victim to the effects of cold. It is essential to provide quickly warmth, shelter and treatment, and evacuate him to the Army area. Let us now examine the methods by which this can be done.

Site of wounding to battalion aid station. We have already mentioned the adoption of the policy of working in pairs in the Arctic. When a man is so seriously wounded that he cannot make his own way back to the battalion aid station, he will be assisted in the first place by his "buddy". This partner can first provide some sort of shelter from the wind, either by erecting a snow wall on the windward side of the casualty, or by digging a shallow trench in the snow, and placing the casualty in it. He can then seek the assistance of the company aid men, or mark the location of the casualty so that he can easily be found by the litter-bearers. Litter-bearers will be from either the aid station or regimental collecting station, and will have to be provided in a more generous scale than we have found necessary in the past. Their task will be to get the casualty into a "casualty evacuation bag" as quickly as possible. With the fighting confined to a small front, and with adequate marking of the location of casualties, the delay should not be too great. This casualty evacuation bag provides protection against the cold, and speed is essential in getting the patient into protection. Once the patient is protected, the need for haste, as far as the cold is concerned is not so great. Within the casualty evacuation bag, the wounded part can be exposed, and dressings applied, the operator using bare hands for short periods at a time. It is generally considered that a tourniquet is extremely dangerous in the Arctic. This is doubtless true if one thinks of the patient with the tourniquet being left exposed to the cold. If the tourniquet is applied after the patient is in the casualty evacuation bag, it is probably no more dangerous than when used in a more temperate climate. It is not possible to give infusion of blood or plasma under these circumstances, nor can much be done in the way of splinting of fractures, but morphine can be given from syrettes. The syrettes will be carried by the stretcher bearers, beneath their clothing, to keep them from freezing. The casualty, wrapped in the casualty evacuation bag, will next be loaded onto some sort of sled on which he can be dragged to the battalion aid station. Several types of apparatus have been tested; sleds, toboggans, stretchers mounted on skis, and various types of snow-boat. All have their advantages and their disadvantages. Much depends upon the type of snow, whether it be soft or hard-packed. Similarly, the litter bearers may or may not find it an advantage to wear snowshoes. On one exercise, it was found that a casualty-bearing toboggan could only be dragged through soft snow 2 1/2 feet deep at a rate of one m.p.h., but on harder snow, litter-bearers can make 2 1/2 to 3 m.p.h. without difficulty. The battalion aid station is the forward position at which any serious attempt at treatment can be made. Here shock can be treated, hemorrhage arrested, splints and dressings applied. It will be sited as far forward as vehicles can be brought.

Some form of tentage can be utilized for battalion aid station. A tent with an insulated roof and walls is now in use, which can be heated quite well by different types of heater. Snow heaped up the side-walls not only provides additional warmth, but also helps to prevent the tent from being blown down. Another very satisfactory type of battalion aid station is a sled-drawn wannegan.



# MEDICAL ASPECTS OF ARCTIC WARFARE

There will be no "walking wounded" beyond the battalion aid station. All casualties will be evacuated from there by vehicle. This will normally be by means of oversnow ambulance, but minor casualties might well be taken out in the tractor-train which brings up supplies. The ambulance which we have been using is still far from perfect, but improvements will be made in the light of experience which has been gained. There has been considerable talk of the virtues of the helicopter as a means of transporting wounded. However, there are several grave disadvantages to the helicopter; it has a very small load-carrying capacity, it is almost useless in a wind (and wind is an ever present factor in the Arctic), and it is a "sitting duck" for enemy fire. We are, therefore, thinking in terms of overland evacuation of casualties. In any of the vehicles at our disposal, patients will be transported still in their casualty evacuation bags. This will provide adequate protection against the cold. However, in cases where still more warmth is required, this can be provided by means of chemical heating pads or by an electrically heated blanket which will plug into the 24 volt circuit of the vehicle.

The clearing station will be either in tents or in prefabricated huts, which can be heated by means which we already have. However, when we speak of heating, we must remember that although operations, dressings and other treatments which necessitate exposure of the patient will be carried out in a fairly normal room temperature, the wards themselves will be just slightly above freezing. Thus, the patient will remain in his casualty evacuation bag even in the clearing stations, as a general rule. For this, as well as for other reasons, it will be the principle to evacuate all casualties to the evacuation hospitals as quickly as possible. Most casualties will be evacuated from the clearing station by air ambulance or air transports, although, if necessary, some may be moved by ambulances. At the advanced or main bases will be found the evacuation hospitals. These will be housed in more permanent buildings of such construction that the question of out-of-doors temperature is no longer of particular interest to us.

The casualty evacuation bag at present designed is unsatisfactory, too bulky, heavy and expensive. The Finnish Paper Bag or some similar device is under investigation. The chief requirements being lightness, expendibility and protection against windchill until the soldier is evacuated to a heated shelter. Dog teams are satisfactory means of patient transportation along narrow trails. The M29C (Weasel) is generally unsatisfactory, readily becomes disabled from mechanical difficulties. The wheeled ambulance can be used over open, well-packed roads.

The problem of maintenance of medical supplies is complicated in the Arctic by the fact that liquid drugs freeze and break their containers. Moreover, certain drug products lose their potency on freezing, although many do not, and may safely be used after re-thawing. The problem of container breakage is still being investigated. Thus far, two facts have appeared - first, that containers which are not filled to more than 90% of their capacity are not likely to break; and second, that metal containers of welded construction are very resistant to bursting. It seems rational to use these whenever possible, in place of metal containers with rolled or soldered edges; or glass containers. Moreover, these containers should not be filled more than 90% of capacity. As a general rule, medical supplies will be stored as far forward as airhead, in a shelter in which the temperature can be maintained above freezing. They will be sent forward to battalion aid station in small quantities, as required. Perishable supplies will be packed in a box especially insulated with glass wool or of similar insulating material. When left unopened, such a box can be expected to prevent freezing for as long as 24 hours. Additional heat inside the box can be supplied by a chemical heat block.

## Personal Hygiene and Sanitation

Personal Hygiene: This becomes a special problem in winter operations since the water supply may often be so limited that there is scarcely enough for cooking and drinking. The value of cleanliness in preventing vermin infestations and skin infections is unquestioned, particularly when large groups of men live in the cold for more than a few weeks. Heated bathing facilities should be provided when troops are to be away from field installations for long periods. Teeth should be brushed at least once a day. The body should be bathed at least once a week and when it is impossible to provide for a complete bath, the feet, crotch and armpits should be cleansed daily or at least every other day with a clean, wet, soapy cloth. A daily wash-up with shave and frequent change to clean underwear and socks is a very important morale factor. A beard is but slight protection against the cold and prevents early recognition of frostbite. Dirty, sweaty or greasy bodies, hands and feet result in dirty, moist and greasy clothing and a consequent lessening of the insulating



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## MEDICAL ASPECTS OF ARCTIC WARFARE

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value. Slovenliness lowers morale and breeds lack of discipline as well as illness. It must not be tolerated and means to avoid it must be provided. Since it is very difficult to wash and dry woollens, the wearing of cotton underwear next to the body will permit wearing the woollens for longer periods. Laundry facilities should be made available at supply bases and arrangements made for service to advance units.

**Excreta Disposal:** Under most conditions in the Arctic and Sub-Arctic, standard methods of excreta disposal as described in current technical or field manuals can be utilized. In severe winter conditions simplicity of construction and availability to the individual are the most important prerequisites of these facilities.

On the march a snow hole may be used and, if possible, it should be close to a tree or rock so that no tent will later be erected over it. Larger groups moving by vehicles might very well use a light latrine trailer or wannigan that can be heated.

In snow foxholes, a disposable paper container is adequate. There is no place or necessity for latrine facilities in any individual shelter except the snow foxhole. This is poor discipline and will be offensive to the other occupants of the shelter.

In forward bivouacs a slit-trench in the snow protected from windchill by a windbreak should be placed in close proximity to a group of tents. On breaking camp each latrine must be carefully closed and well marked. This will give sufficient indication so that a tent will not be erected on the spot unless the area has drifted over with snow to a depth that would make it unimportant.

In a more permanent type of camp a heated shelter using either a tent or pre-fabricated unit and utilizing the portable folding box latrine is desirable. The containers used may be either pails or cardboard containers; the latter are preferable since they are expendable and can more readily be incinerated. A small sump may be dug out of the frozen ground for the disposal of urine and men should be instructed to urinate in the sump prior to defecation. A tent or prefabricated unit once used as a latrine should not later be used for other purposes because frost from urine vapor forms over the inside and leaves a strong odor. All such tents should be marked with a designation "LATRINE", clearly indicated on the outside.

Heating a latrine shelter will depend on its size and how rapidly it loses heat. There is no requirement for a heated shelter even at temperatures as low as  $-40^{\circ}\text{F}$ . With satisfactory protection from wind and snow, there is no physical hazard in using an open latrine. At temperatures below  $-40^{\circ}\text{F}$ , some form of heat is desirable, such as a wood fire outside an open air latrine or a stove in a shelter. When heat is used the services of an attendant are necessary both to keep the fire going and to safeguard against a fire hazard.

It is impracticable during winter to either dig pits extending into the sub-strata or blast holes with dynamite. A method of choice in certain permanent situations where pit digging is practical and drainage adequate, is to dig the pits in summer for use during the winter.

A controlled central disposal area is essential. This requirement increases in importance in relation to the number of troops occupying or re-occupying given areas. Incineration is costly from the standpoint of the amount of fuel required and is considered impracticable until more efficient incineration are developed. Excreta and expendable containers should either be buried or shoveled out of the snow and placed on a dump. Care must be exercised not to contaminate nearby water supplies. Unless there is sea-ice or near the mouth of a river where the water will not be used for drinking purposes, sewage should not be placed on the ice to be carried away in the summer. Conventional methods of sewage disposal are in use at fixed installations in the Arctic and Sub-arctic; however, certain modifications are necessary to prevent freezing of pipes and treatment units during the winter season by use of the utilizer and providing glazed structures over sludge beds to permit the proper drying of sludge from the sewage settling tanks. The degree of treatment required at installations where sewage is discharged into a stream or surface body of water should be determined by the Medical Department.

**Trash and Garbage Disposal:** During the summer it is possible in most areas to operate a sanitary fill. This method is fully described in Corps of Engineer manuals and consists essentially in constructing a trench by means of earth moving equipment and keeping the fill covered with earth



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# MEDICAL ASPECTS OF ARCTIC WARFARE

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to prevent access of flies and rodents. In winter the edible portion of food waste may be collected in receptacles and disposed of in low areas at a safe distance from camp, where it may be consumed by wild animals. Dry garbage, such as tin cans, may be crushed and placed on the ice of adjacent ponds, rivers and streams. If garbage is dumped on river ice, it should be well away from the shore so that it will be carried away during the spring thaw. Liquid waste disposal may be poured on the surface of the ground, care being exercised to avoid contamination of any nearby water supply source. The use of gasoline to burn garbage is not desirable due to the logistical difficulties of supply. All garbage or sumps should be marked with appropriate signs to show troops who might occupy these sites later where previous disposal areas existed.

## Water Supply

The most efficient and safest method of water supply is by the operation of water points by Engineer Water Purification units. It is possible to operate such water points within heated shelters, however, distribution to the forward areas and storage presents a more difficult problem. Water should be supplied to semi-permanent camps by heated water vehicles and stored in heated storage tanks. Small groups or convoys should be provided water in five (5) gallon insulated water cans. Individual water containers such as canteens should be carried three-quarters full beneath the outer clothing where body warmth together with the constant agitation will prevent freezing to the extent that the canteen will not rupture. At night the canteen may be kept warm by placing it inside the sleeping bag.

**Melted ice and snow:** The utilization of melted ice and snow as a source of water supply is very unsatisfactory and should not be used except as an emergency procedure. The process of melting is time consuming and wasteful of fuel. When such a source is utilized for drinking purposes, an area should be set aside on a nearby river, lake or stream and restricted for this purpose only. A preferable site is one upwind from the camp and isolated from the excreta and garbage disposal areas. If such an area is not available, then snow should be gathered from the branches of trees or lightly skimmed from a carefully isolated area adjacent to the individual shelter. Water obtained in this manner must be boiled at least one minute or chlorinated. Chemical sterilization of water under freezing conditions requires a longer period because the disinfecting compounds act with retarded efficiency under such conditions. The time allotted for contact with purification tablets should be two to four times the normal period of one-half hour. Eating ice or snow is unsatisfactory and may result in painful lesions of the lips besides the danger of contamination.

## Shelter

Temporary structures such as the tent, hexagonal, 4-6 man, complete, Jamesway shelters, wannigans, snow houses or igloos, etc., provide quite satisfactory shelters under the extremes of Arctic temperature. The tent, hexagonal, 4-6 man, complete can be used as a five (5) man shelter. It can be erected by three (3) men in half an hour and disassembled and packed in less time. It provides shelter for small group feeding, using the 5-1 ration. Maintains stability against winds of from twenty-five (25) to thirty-five (35) miles per hour and can be readily heated by the Yukon stove in temperatures as low as - 60 F. The inner nylon liner retains warmth and prevents condensation. The heat at the apex being much higher than at ground level, permits rapid drying of damp clothing without interfering with the floor space. Preparation of the ground by snow removal, leveling of any irregularities, and the laying of small pine or spruce twigs beneath the canvas floor provide added insulation and comfort. Pre-fabricated portable structures can more readily be heated and ventilated; however, their weight and bulk makes transportation difficult, too much time is wasted in their erection and disassembling, with a tendency to lose their many small parts. Fixed installations are usually over-heated. Temperature ranges should be maintained between 50° to 60° F, and a humidity between 40 to 50 percent. Overheating of shelters reduces the acclimatization of men to cold and thereby decreases their efficiency. Clothing must be adequate to protect the body from chilling, frostbite and exposure. The individual must become so accustomed to the care and wearing of his clothing that it becomes an automatic part of his normal environment. The layer principle of insulation is utilized for maximum protection. This consists of providing several layers of material in the garment, with air insulating spaces between. Such insulation depends on thickness, material and the clothing remaining dry.



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# MEDICAL ASPECTS OF ARCTIC WARFARE

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## Mess Sanitation

Adequate nourishment is of prime importance if the fighting efficiency of troops is to be maintained and is doubly important in the Arctic. In fairly stable situations in the field, it is possible to operate a normal mess if sufficient shelter can be provided to allow for preparation and consumption of the food. Ordinary tentage is unsuitable for cooking or messing because of the excessive frost accumulation on the side-walls and ceilings. This frost melts when the tent is warm and causes water to drip onto the food and the personnel. When the moisture freezes, it is impossible to strike the tent. In base camps, sufficient shelter and hot water are available to adequately clean mess-gear, but in forward areas mess gear should be of the expendable type such as paper plates, wooden forks and spoons. Large group feeding raises special problems. Preparation and cooking of food and maintenance of kitchen equipment are difficult in freezing weather. The various factors affecting the efficiency of kitchen personnel include cold, wind, heavy clothing, gloves, all of which hinder the handling, preparing and cooking of food and maintenance and cleaning of equipment. Since the mobility of the individual is much reduced in cold weather, difficulty will be experienced in going to and from the place of activity in the mess-line, particularly when units are dispersed. Food cools rapidly when kept in ordinary dispensing containers, and even more rapidly in metal mess-gear. In order to solve these problems, special Arctic field kitchens, preferably mobile, should be provided for the protection of both kitchen personnel and equipment. Special insulated food containers should also be provided.

## Diseases of the Arctic

The Eskimo, like many native groups isolated from civilization and contact with civilized man, is very susceptible to the infectious diseases. His immunity is negligible. The spread of disease is accentuated by his total lack of knowledge of the simple rules of sanitation; also being nomadic in his habits, he tends to increase the contact from camp to camp. There have been serious out-breaks of influenza, measles, scarlet fever and the recent epidemic of poliomyelitis in 1949. It demonstrated that polio is capable of appearing in epidemic proportions even under extremely cold climatic conditions. During the building of the Alaskan highway, sudden epidemics appeared among the American Indians such as:

- Measles
- Catarrhal jaundice
- Dysentery
- Mumps
- Meningococcus meningitis

Upper respiratory infections (head colds, sinusitis, septic sore throat, pharyngitis, bronchitis, and laryngitis) will be the greatest causes of morbidity among troops in Alaska. The extreme changes in temperature, the damp, foggy rainy climate and the frequent necessity of living in close quarters will all contribute to the incidence of these diseases. Tuberculosis constitutes the most urgent and important health problem of the natives in the Arctic. This disease is transmitted by droplet infection by air and is aggravated by the overcrowded and confined living quarters. Typhoid is spread by carriers in the Arctic as elsewhere, mainly by contaminated water supplies as a result of poor methods of sanitation. Typhus is an ever-present menace in cold weather operations.

Trichinosis from Polar Bear Meat: Recent examinations have been carried out on polar bear meat from Spitsbergen. Trichina have been discovered in several cases. During the war, Germans occupying a meteorological post somewhere on Franz Joseph Land all developed Trichinosis, presumably gotten from polar bear meat.

In 1922, the Health Section of the League of Nations reported there were more cases of cholera in the Ukraine than in any epidemic for the past ten years. Cholera or plague could be readily transmitted from Manchuria or China. Bacillary dysentery is liable to follow the movement of armies in any part of the world and like typhoid fever, its distribution is one of hygiene rather than geographical influence. The occurrence of the disease in epidemic form is influenced by the sanitation of the region, being more prevalent in communities where fly suppression and garbage disposal are not properly controlled. Diseases which are transmitted by the body louse can very readily assume epidemic proportions in the Arctic. Crowded conditions with lack of facilities for personal hygiene breed vermin. Sanitation is primitive even in the larger communities; consequently,



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# MEDICAL ASPECTS OF ARCTIC WARFARE

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all surface water near settlements in subject to pollution. In the uninhabited areas, surface water should always be filtered and chlorinated. Due to large consumption of raw or partly cooked fish and meat, gastro-intestinal diseases are very common among the native population, especially tape-worm infestations. With a basic army ration, as supplied troops in the field, there should be no deficiency diseases. For isolated groups having to live off the land, it is well to realize that on a meat diet, you must have fat with your lean, the fat taking the place of the butter, cream, vegetable oils, sugar, and starches that are present in ordinary mixed diets."

(The above article was taken from First Army Medical Bulletin No. VI, Vol. V, June 1950)

## SANITARY INSTRUCTIONS

The following letter from the Office of the Surgeon General, dated 25 April 1898 written by General Sternberg is reproduced below:

"In time of war a great responsibility rests upon medical officers of the Army, for the result of a campaign may depend upon the sanitary measures adopted or neglected by commanding generals of armies in the field. The medical officer is responsible for proper recommendations relating to the protection of the health of troops in camp or in garrison, and it is believed that as a rule, medical officers of the United States Army are well informed as to the necessary measures of prophylaxis and the serious results which infallibly follow a neglect of these measures especially when unacclimated troops are called upon for service in a tropical or semi-tropical country during the sickly season. In Cuba our armies will have to contend not only with malarial fevers, and the usual camp diseases--typhoid fever, diarrhea and dysentery--but they will be more or less exposed in localities where yellow fever is constantly present and under conditions extremely favorable for the development of an epidemic among unacclimated troops. In view of this danger, the attention of medical officers and of all others responsible for the health of our troops in the field, is invited to these recommendations:

When practicable, camps should be established on high and well drained ground not having been previously occupied.

The surface of fecal matter should be covered with fresh earth or quicklime or ashes three times a day.

Every man should be punished who fails to make use of the latrines.

All kitchen refuse should be promptly buried and perfect sanitary police maintained.

Troops should drink only boiled or filtered water, coffee or tea (hot, not cold) except when spring water can be obtained which is pronounced to be wholesome by a medical officer.

No doubt typhoid fever, camp diarrhea, and probably yellow fever are frequently communicated to soldiers in camp through the agency of flies, which swarm about fecal matter and filth of all kinds deposited upon the ground or in shallow pits, and directly convey infectious material, attached to their feet or contained in their excreta, to the food which is exposed while being prepared at the company kitchens or while being served in the mess tent. It is for this reason that a strict sanitary police is so important. Also, because the water supply may be contaminated in the same way, or by the surface drainage.

Food should be thoroughly cooked and free from fermentation or putrefactive changes.

Light woolen underclothing should be worn and WHEN A SOLDIER'S clothing or bedding becomes damp from exposure to rain or heavy dews the first opportunity should be taken to dry it in the sun or by the fires." So states the General's letter.

A number of other points are listed, but the important thing is that THOSE SAME RECOMMENDATIONS ARE AS VITAL TODAY AS THEY WERE IN 1898! THEY CONSTITUTE PREVENTIVE MEDICINE! DISEASES AND INJURIES DON'T JUST HAPPEN, THEY ARE CAUSED AND ARE PREVENTABLE'.



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# VETERINARY SERVICE

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## OYSTERS

Mark D. Hollis, Assistant Surgeon General of the Public Health Service, Federal Security Agency, today took occasion, on the opening of the traditional oyster season - the "R" months - to debunk the wide-spread notion that oysters are harmful to consumers at any other time of the year.

"Oysters are edible the year-round," Mr. Hollis said, "But they are fatter, more palatable and more plentiful on the market during those months which contain the letter 'R'."

Mr. Hollis said the tradition that oysters must be eaten only in the "R" months may have originated somewhat as follows:

1. In that species of oyster eaten in the Old World for centuries, fertilization of the seed from which the baby oysters grow takes place within the shell of the parent oyster. Shortly before the baby oysters are ejected by the parent to fend for themselves, they begin to develop a shell. If the Old World oyster is eaten at this stage of incubation, the large number of almost microscopic baby oysters, each developing a shell, impart a gritty quality to the meat. Because the reproductive period of all oysters is in the summer, early settlers of this country, cognizant of this but mindful of their Old World variety, avoided placing New World oysters on the menu until later in the year.

"It is only coincidental," Mr. Hollis said, "That those months in which the oyster is most palatable happen to be the "R" months."

2. Even after our forefathers discovered that the North American East Coast oyster fertilizes its eggs in the sea water outside the parent shell, oyster consumption in this country continued, for the most part, to be a winter activity. Partly responsible for this was the fact that only until recent years have refrigeration facilities been developed whereby oysters can be preserved in warm weather while being transported from the coastal growing areas.

3. Today, when perishable food products are transported thousands of miles by railroad and airplane, yet preserved by refrigeration, the greater portion of the country's shellfish consumers still cling to the old tradition.

"The advent of quality frozen oysters available throughout the year, however, may change this custom," Mr. Hollis said.

The Assistant Surgeon General explained that for the past 25 years the Public Health Service, through its Division of Sanitation, has been conducting a joint program with producing States and the industry to prevent the spread of shellfish-borne disease outbreaks.

C. H. Atkins, Chief of the Public Health Service's Division of Sanitation, said that "one of the most effective means existing today for the protection of oyster and other shellfish consumers is a list of interstate shellfish shippers certified currently by each producing State and distributed by the Public Health Service to interested State and local authorities in the receiving States."

"As long as he has one of these lists available for quick reference, a State or city official, even a dealer, can determine whether or not a shipper in a producing State has been certified," Mr. Atkins said.

He explained that State authorities periodically inspect each shellfish plant within their jurisdiction and issue numbered certificates to those producers and dealers meeting State health requirements for growing, processing, and otherwise handling shellfish. The certified names, in addition to other records and information relating to the State's shellfish control activities, then are made available to the Public Health Service through its Division of Sanitation.

Mr. Atkins said that State and local authorities, as well as industry representatives, interested in receiving the lists of certified shippers may obtain them from the Division of Sanitation, Public Health Service, Federal Security Agency, Washington 25, D. C.

In a note of assurance to consumers, Mr. Atkins explained that across-the-counter purchasers of oysters and other shellfish also can ascertain the reliability of a shellfish product by the



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## VETERINARY SERVICE

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### OYSTERS (Continued)

certificate number visible on each package shipped interstate. He also said that the point of origin of shellfish shipments can be traced swiftly through detailed records which certified distributors maintain.

"The existing State-Industry-Federal system of controls we are using today," Mr. Atkins said, "is not entirely effective against non-certified or 'bootleg' shippers unless health authorities and food control officials in the inland as well as the coastal States are constantly on the alert for them."

"Shellfish from non-certified dealers," he added, "may not have received proper sanitary protection and should be avoided."

Mr. Atkins said his division has on hand limited copies of a manual containing numerous specific sanitation standards and practices recommended for adoption by all segments of the shellfish industry. It is a 44-page booklet published in 1946 as Public Health Bulletin No. 295 and entitled "Manual of Recommended Practice for Sanitary Control of the Shellfish Industry."

The Public Health Service has been conducting bacteriological studies and sanitary surveys of major shellfish-producing areas periodically for a number of years. Most recently, the Division of Sanitation and the Environmental Health Center of the Public Health Service, in Cincinnati, in cooperation with the respective States, concluded joint studies of shellfish growing areas at Hampton Roads, Virginia, and in the Raritan Bay area of New York and New Jersey. At the moment, the Public Health Service is carrying on important fundamental investigations into shellfish bacteriology through its Woods Hole Laboratory on Cape Cod, Massachusetts, Mr. Atkins said.

### Report of Expert Committee on Rabies, World Health Organization

The first session of the World Health Organization (WHO) Expert Committee on Rabies was held in Geneva, Switzerland, April 17-22, 1950.

In its observations and recommendations, the Committee summarized briefly most recent important advances in the study of rabies. Important vectors of rabies virus other than dogs, cats, wolves, jackals, and foxes, were recognized including the viverridae (mongoose, meercat, and genet cat) in the Union of South Africa, and vampire bats in the South and Central American states. The need for further ecological studies was suggested since the existence of asymptomatic carriers has arisen out of the observation made on vampire bat as vector of the disease.

For many years the possible prophylactic use of rabies immune serum has been recognized, and experiments have pointed to its practical potentialities. More recent experimental work employing quantitative procedures has definitely shown the superiority of hyperimmune serum, especially when combined with a course of vaccine, over the use of vaccine alone after exposure to peripherally introduced street virus. Practical means of producing this serum have been demonstrated. The use of highly potent hyperimmune serum preceding a course of vaccine gives promise of saving most of the cases of human rabies in which short incubation time does not allow a sufficiently long period for the development of active immunity. In view of experimental findings, the Committee believes that at the present time serum combined with vaccine offers the best promise as a means of preventing rabies after severe exposure, and recommended field trials in human beings thus exposed. Dr. M. Baltazard, Director, Pasteur Institute, Teheran, Iran, was designated responsible for carrying out these trials.

The frequency of rabid wolf bites in man is relatively high in Iran; 60 during the year 1949, and 22 for the first four months of 1950. These cases are always severe, occur in groups, and at least half of the number of persons in each group exhibit mutilating head and face wounds. Mortality rate exceeds 30% in persons bitten in spite of intensive vaccine treatment. The suggested plan of treatment will meet the severest kind of test under the circumstances existent in that part of the world.



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## VETERINARY SERVICE

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### Indications for Vaccine Treatment

The Committee considered the variations in indications for vaccine treatment at present used throughout the world. However, there was general agreement along the lines set forth, which have been formulated with a view towards reducing to a minimum the number of persons subjected to treatment unnecessarily.

Fairly often a situation arises in which a person previously exposed and treated with vaccine is again exposed to infection with rabies. The question as to whether treatment should again be instituted and, if so, on what basis, must be answered. It is recommended that if this situation arises within three months of the first or previous course of vaccine, no further treatment is necessary unless the second exposure is of a severe type. If the interval is between three and six months, two reinforcing doses of vaccine, one week apart, are indicated, whereas if more than a six months' interval has elapsed, the treatment should be on the same basis as if it were an original exposure.

Allergic manifestations such as angioneurotic edema, fever, adenopathy, shock, etc., that occasionally follow administration of rabies vaccine may be circumvented by a change to a vaccine made from brain tissue of a different species of animal.

### The Control of Rabies in Animals

The Committee recommends that where feasible a biting animal should be kept under observation for a period of ten days. If the animal shows no signs of illness during this period, it can safely be assumed that the animal was non-infective at the time of biting.

Where only restrictive measures are depended upon to control outbreaks of rabies, dogs should be confined for a minimum period of 90 days. If vaccination is done, the restraint period may be reduced to 30 days after vaccination. Destruction of exposed animals or isolation for six months, or if vaccinated within 12 months, revaccination and 30 days isolation is recommended. No specific recommendations were made with respect to the vaccination of meat and milk-producing livestock following exposure. In the case of extensive land areas, and where rabies is already present in domestic and wild animals, it is recognized that quarantine measures, however strict, are impracticable.

### ARTIFICIAL KIDNEY UNIT

The following letter from Albany Hospital, Albany, New York is reproduced below:

"The Albany Hospital has recently established an Artificial Kidney Unit which is one of only a very few in the entire United States. The justification for the time and money spent in setting up such a Unit and operating it for the benefit of patients in this area lies in the fact that it is a life saving measure in certain types of kidney diseases, where due to shock or trauma the kidneys shut down and cease to function for various periods of time. Until the advent of this machine, patients who were unfortunate enough to suffer this complication invariably died, but with the Artificial Kidney it will be possible to supplement the kidney function for enough hours or days to allow the kidney tissue to recover and resume its natural function.

Due to the cost of this equipment and the expense of maintaining it, which requires a physician and nurse in attendance during the entire period of operation, the Hospital has set up a schedule of charges for each treatment as follows:

Semi-private patients - \$150. Private patients - \$200. Ward patients - \$100.  
The average treatment consists of 8 hours one day and 4 hours the following day. The charges above include the entire treatment period of 12 hours.

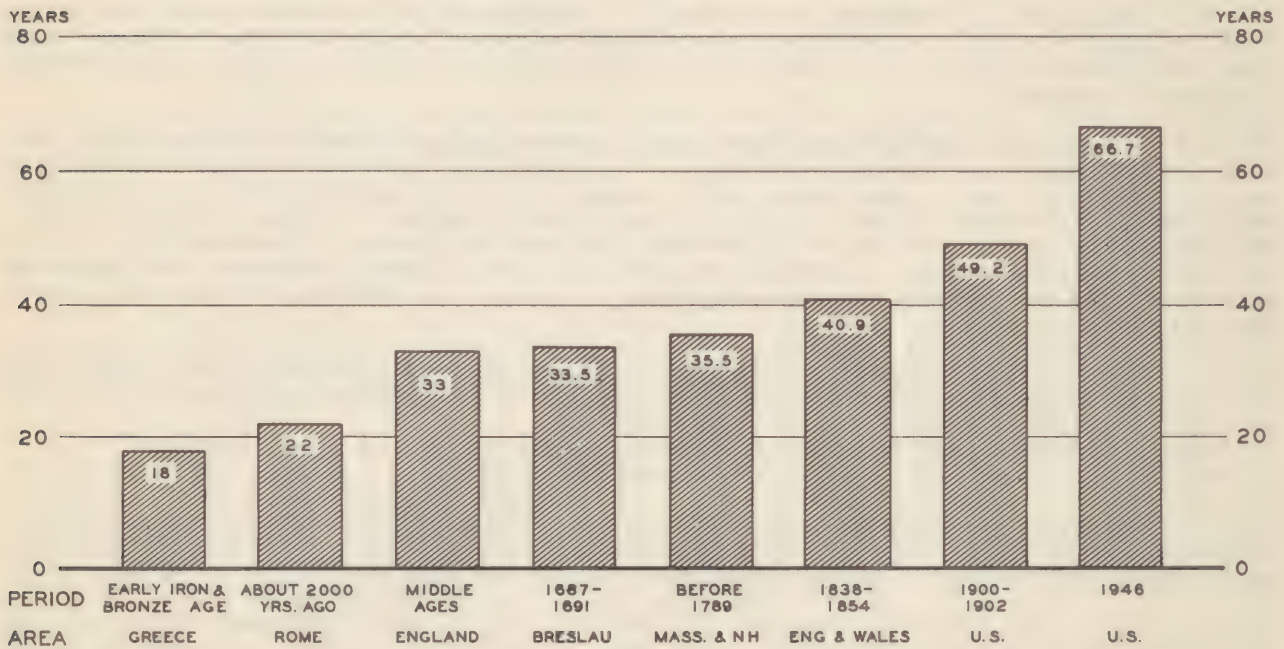
The expenses for this treatment are not included in the GRC formula and so will not be a part of nor included in the cost rate extended to you for hospitalization of patients.

The rate which we will charge to you when your patients receive this treatment will be the minimum rate of \$100.00 per treatment."

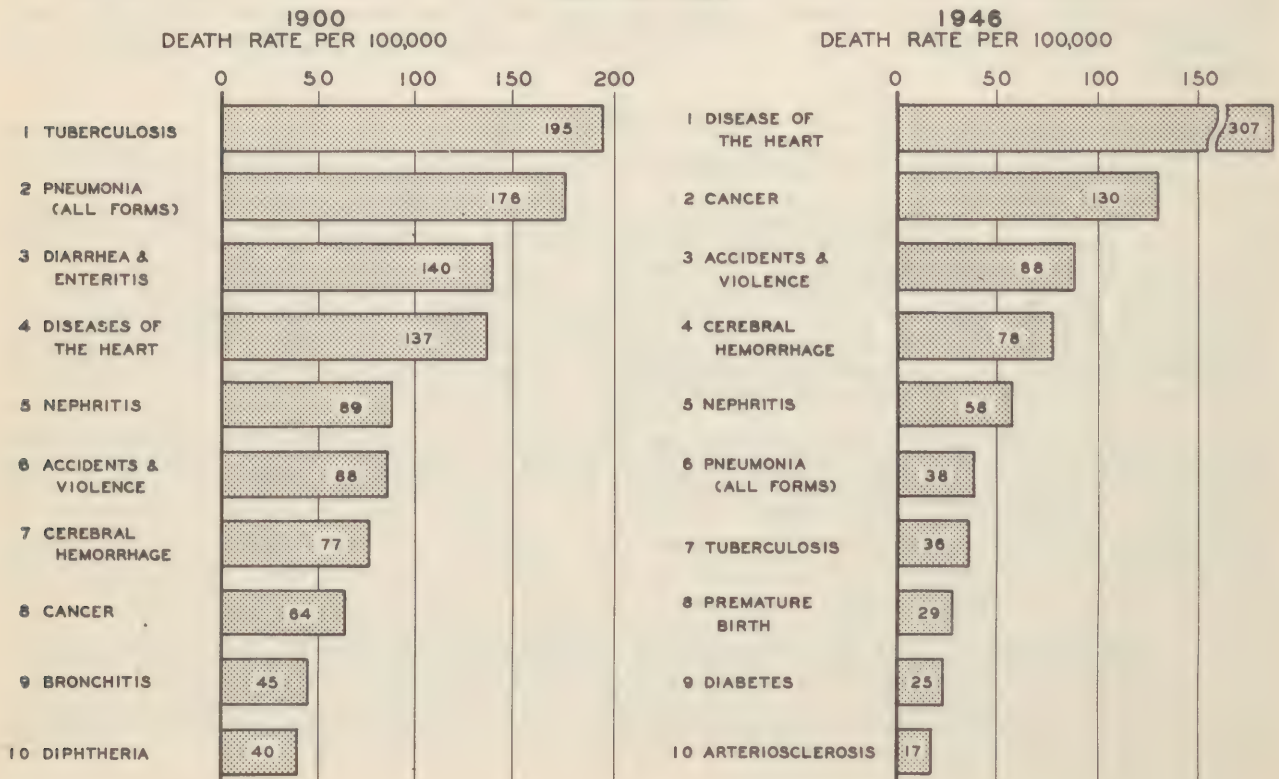


# PREVENTATIVE MEDICINE

## AVERAGE LENGTH OF LIFE FROM ANCIENT TO MODERN TIMES



## RANK OF THE LEADING CAUSES OF DEATH IN THE UNITED STATES 1900 AND 1946





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# PREVENTATIVE MEDICINE

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## LENGTH OF HOSPITALIZATION

The present shortage of Army Medical Service Personnel, which is expected to become more critical in view of present conditions, makes it mandatory that every effort be made to conserve such personnel. In an effort to effect maximum utilization of personnel and to reduce operating requirements to a minimum, studies are being conducted by the Office of the Surgeon General, Department of the Army, of the operational methods now in effect in Army hospitals. Also, the Office of Medical Services of the Department of Defense and the Bureau of the Budget is vitally interested in these problems, particularly with reference to reductions in "length of patient stay" in military hospitals.

While the study is being made at named Army hospitals (general), some recommendations for reducing hospitalization time, are made by the committee studying the problem, will apply to other Army hospitals. These recommendations are as follows:

Accomplishing work-up for elective surgical care on an out-patient status.

Admission of the elective surgical cases on an appointment basis that will insure minimum time lost from admitting date to accomplishment of surgery.

Constant vigilance of Commanding Officer and his indoctrination of Staff to discharge patients promptly on termination of illness.

Other methods of reducing the length of hospital stay are as follows:

Avoidance of admission of cases for domiciliary care.

Screening of the mild psychoneurotic and constitutional psychopathic personality cases in the Out-Patient Clinic. Such psychopathic cases, once hospitalized, are difficult to return to a duty status.

Establishment of a Reconditioning Service when patient-load warrants.

Monthly report by the Registrar to Commanding Officer of hospital on patients in hospital over thirty (30) days; followed by thorough investigation of each case by Commanding Officer.

Prompt handling of records once a case is designated for discharge by the Ward Surgeon.

## DISHWASHING

A dramatic method is being used by one health officer to make restaurant personnel conscious of the potential danger of their dishwashing methods. When he observes them washing dishes in dirty water, he inquires whether they would mind letting him spit in the sink.

As they rear back in surprise at the suggestion, he informs them who he is, and explains that every fork and spoon they are washing has been in someone's mouth and that every cup and glass has come into contact with someone's lips. This they readily admit, and then he goes on to assure them that on every one of these utensils when it comes to the dishwasher there is a certain amount of saliva. In dishwater which remains unchanged for a considerable length of time, he explains, a heavy concentration of saliva builds up. Since saliva is nothing but spit, he next asserts, it matters little whether the dishwasher permits the gradual accumulation of spit in the water from the dishwashing operation, or permits someone to spit directly into the water.

After this striking explanation, there is one more dishwasher who will thenceforth remember his responsibility to the public when washing dishes.

(The above article reproduced from News Digest, August 1950)



# PREVENTATIVE MEDICINE

## REPORT OF A CONTACT OF VENEREAL DISEASE (Medical Department Form 140)

A survey has recently been completed in the Office of the Surgeon, Military District of Washington, for the purpose of ascertaining the number of Medical Department Forms 140 (Report of a Contact of Venereal Disease), that were effective in producing favorable results. However, it will be noted, that of the one hundred sixty (160) cases reported by units within the command, only sixteen (16), or ten percent of the reported contacts were infected with venereal disease; and eleven (11), or six and eight-tenths percent of the named contacts were not infected at the time of the examination. Compare these figures to the ninety-nine (99) reports, or sixty-two percent of the total reports received that contained insufficient information to conduct an investigation!

It was noted that during April and May, 1950, there was a decided increase in the number of reports received in this office that were returned to the originating unit because of insufficient information. This increase could possibly be traced to the interviewing personnel in the Venereal Disease Clinics within the command. It is believed that if the interviewing personnel used a more personal and friendly approach toward the situation, we would start receiving many more completed reports. Subjoined below are a few suggestions, which may prove helpful both to the command and to the civilian health authorities:

- (1) Put the infected individual at ease and casually explain to him or her the importance of your obtaining complete and correct information.
- (2) Explain to them that by their cooperating with you they will be doing a service to the contact, themselves, their buddies and society in general.
- (3) Stress upon them that their names will not be used on the reports (Form 140 - Med Dept).

Listed below is a break-down of reports received during the first five months of this year indicating the number and percent of contacts who were found to be infected, who were not infected, the number and percent of reports returned to originating units due to insufficient information, and "other reasons", which included one of the following: (1) The patient may have named his wife.

(2) The contact named by the military personnel had moved or because the contact may have been uncooperative with the state department of health.

### VENEREAL DISEASE REPORTS RECEIVED DURING FIVE MONTH PERIOD, JANUARY TO MAY, 1950

<u>ORGAN- IZATIONS</u>	<u>TOTAL CASES REPORTED</u>	<u>CONTACT INFECTED</u>	<u>CONTACT NOT INFECTED</u>	<u>RETURNED a/c INSUF. INFO.</u>	<u>OTHER REASONS</u>
MDW Units (Cases)	160	16	11	99	34
(Rates) #	---	10.0	6.8	62.0	21.2
Units Out- side MDW *	33	8	3	18	4
	--	24.2	9.1	54.6	12.1
Grand Total	193	24	14	117	38
	---	12.4	7.2	60.7	19.7

NOTE: "#" -- Activities located within the geographic area of MDW

"\*" -- Activities located outside the MDW geographic area, naming the MDW area as place of encounter and/or place of exposure.



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# PREVENTATIVE MEDICINE

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## X-RAY PERSONNEL HEALTH PROVISIONS

Attention of Surgeon's is invited to TBMED 62 paragraph 5 dealing with the health provisions for X-Ray personnel reproduced below.

a. General. The biological effects of X-radiation may be manifested by skin changes, by changes in the development of finger (or toe) nails, by changes in the blood and other deep-seated tissues, and possibly by genetic affects. The character of these maleffects is dependent upon the penetrating quality of the X-radiation and also upon the intensities of it. Both primary radiation and scattered radiation are concerned in either instance. The most penetrating rays are produced when operating in high kilovoltage ranges; yet, the most destructive skin changes may develop when operating in the low kilovoltage range. In either instance, tolerance is increased in proportion to the time interval over which any given quantity of exposure is received. Thus, there must be limitation of actual roentgenographic duty hours.

b. Duty Hours. Duty hours devoted to roentgenography, by roentgenologists and/or X-ray technicians (264) will not exceed 35 hours per week. These hours shall be arranged so that no more than one 24-hour tour of general duty activity will be permitted per week. Following any such extended tour, a rest period will be provided the following day. One full day and one afternoon will be set aside each week for exercise out-of-doors.

c. Blood counts. White blood cell counts and hemoglobin determinations will be accomplished on roentgenologists and X-ray technicians at least once every 2 months. If a white cell count of less than 4,500 or a hemoglobin of less than 70 percent be obtained, reexaminations will be accomplished daily for 3 successive days. If two of the three examinations indicate a reduction in the white cell count to less than 4,500 or a reduction in the hemoglobin of less than 70 percent, the individual concerned must be assigned for a period of no less than 3 months to duties where X-radiation exposure will not be incurred; reexaminations will be accomplished every 2 weeks during such time. If the white cell counts falls below 4,000 or the hemoglobin be reduced to less than 50 percent, the individual must be given an assignment of duty on the outside or a sick leave of no less than 1 month. Records of checking the blood count must be kept in duplicate, one copy being maintained in the X-ray department, the other being attached to W.D., AGO Form No. 66-1 (Officers' and Warrant Officers' Qualification Card) for officers, or WD, AGO Form No. 24 (Service Record), for enlisted personnel.

d. Responsibilities. The commanding officer of the installation concerned will be responsible for enforcement of the requirements described herein.

## HEALTH HAZARDS FROM INDUSTRIAL SOLVENTS

1. The surgeon should familiarize himself with industrial operations of his post, and acquaint himself with the type of solvents in use and the nature of their toxic action. Many solvents are mixtures, and many are sold under trade names which do not indicate their composition. Information on the composition of these mixtures may be obtained by referring specification numbers to the Office of The Surgeon General or the manufacturer, and by analyses of these solvents.

2. Eliminate the hazard by substituting less toxic solvents where possible.

3. The degree of exposure should be determined, as well as the concentration of solvent vapors in the air.

4. Skin contact should be prevented as much as possible by the use of impervious gloves, sleeves, and aprons. The provision of adequate washing facilities is most important. Grease-removing soaps should be used for skin-cleansing purposes; solvents for skin-cleansing purposes should be prohibited.

5. Inhalation of solvent vapors should be prevented. The most effective method of preventing inhalation of vapors is by the use of local exhaust ventilation where practicable. The op-



# PREVENTATIVE MEDICINE

erator should not be between the source of the vapor and the exhaust ventilation port. When a ventilating system is neither practicable nor available, the work should be done outdoors. The operator should be in a position so that the prevailing wind carries the vapors away from him, not toward him. Personal protection devices, such as proper respirators, may be used for intermittent exposures. Cartridge-type respirators approved by the United States Bureau of Mines may be used only for short exposures to low concentration, and cartridge changes should be according to manufacturers' instructions. Supplied air respirators are preferable. The vapor density of many of these solvents is greater than air, but due to the influence of air currents, ventilation requirements are the same as for all vapors and gases.

6. The time of exposure should be reduced, and the rotation of workers should be done when other methods are not applicable.

7. Fire and explosive hazards in the use of solvents should always be considered.

8. Preplacement medical examination should be made, and persons who have a history of previous anemia, hepatic and gall bladder disease, syphilis, diabetes or chronic cardiac, and renal disease should not be employed to handle solvents. This rule applies also to obese individuals and alcoholics.

9. Workers should be instructed about the hazards associated with exposures to solvents and the precautionary measures for the prevention of intoxication.

## CHANGES IN MOS OF MD OFFICERS

Pending issuance of revisions of TM 12-425A all Requests for changes in classification in MOS of Medical Corps and Dental Corps officers will be submitted by letter direct to the Surgeon General, or through Office Air Surgeon General in case of officers on duty with Air Force. Requests will include specific reasons for change in classification. WD AGO Form 66A will not be used to initiate a Request for Change in MOS. This form will be utilized to officially change WD AGO Form 66 when approval of a change in MOS has been granted.

Some commanders have interpreted WCL 27999 and SGO Circular 49 to authorize letter recommendation only at time of annual review and continue to send other requests on WD AGO Form 66A. This should not be continued.

## SELECTION OF "SERVICEMAN OF THE MONTH" FOR TIME FOR DEFENSE

The Department of Defense, through the Radio-Television Branch of its Office of Public Information, produces an official half-hour program--TIME FOR DEFENSE--over the ABC network from 10:00 to 10:30 PM EST each Tuesday from Washington, D. C. It is planned in the near future to feature on this program a "Serviceman (or woman) of the Month", to be selected by the Department of Defense. Selection will not be limited to any particular service or to rank or grade, although emphasis will be placed on the junior grades.

Selection will be made on the basis of outstanding and newsworthy current achievement, or noteworthy performance of duty over an extended period of time, or a combination of the two. Participation of the individual in some incident which is dramatic, timely, or presents features of unusual human interest is appropriate basis for selection. These broad criteria are subject to amplification by addressees if they so desire.

Recommendations may be submitted to this headquarters, Attention: MEDCI. The number of nominations is unlimited. Submission should be by letter giving the individual's name, rank, serial number, organization and station...and giving the basis for the selection. Where the time element is of importance, wire or telephonic communication should be utilized.

Subject to concurrence of the commanders concerned, the individual selected will be ordered to Washington, D. C. at Department of Defense expense to appear on the radio broadcast where his story will be told.

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# PROFESSIONAL SERVICE

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## EFFECT OF TELEVISION ON THE EYES

Ophthalmologists are being besieged by their patients and acquaintances with questions concerning the effect which the viewing of television has upon the eyes.

While common sense should make us realize that no greater harm can result from looking at a television screen than from watching motion pictures, it is not always easy to dispel the fears and apprehensions harbored by many people, particularly by those who have been made conscious of their eyes by disease of through a refractive or muscular abnormality.

There are two phases to the subject. The first is the effect of television upon the normal eye. The possibility of harmful effects resulting from actual high voltage radiation can be discounted, since the voltage used in direct-view receiving sets is below the 20,000 volts needed for the softest x-rays. A clear, well-defined picture should not produce any strain in a normal eye, except in an individual whose labile nervous system is subject to rapid fatigue. It should be the moral responsibility of every dealer to discourage placing television receivers in localities where a clear signal cannot be received either because of the distance from the nearest broadcasting station or because of local interference.

The layman often fails to realize that in any type of visual activity, mental fatigue sets in much sooner than actual eye fatigue. Thus, the mind serves as a safety valve to prevent injury to the eyes. Those individuals who experience fatigue or eye strain as a result of viewing television probably have an ocular abnormality which has hitherto remained unrecognized. This is, therefore, a good provocative test in that it induces these persons to seek medical advice sooner.

In the case of patients who have ocular disease, no special precautions need be taken, except to warn them that they should not exceed the limit of tolerance of their eyes by viewing television after fatigue has set in. Glaucoma patients should be reminded that the room should not be kept completely dark. A moderate amount of general illumination does not interfere with the quality of the picture and is, in fact, desirable even for normal people. Presbyopes may have some difficulty in viewing screens at an intermediate distance and they may require a special correction for that distance.

Children seem to prefer watching television at a relatively short distance, since the screen subtends a larger angle at close range, thus minimizing extraneous distractions. There does not appear to be any contraindication to using this short distance.

Children tend to use for television the time which was formerly spent in outdoor play and other non-visual activities. Television, when added to homework, may cause symptoms of asthenopia which had not been present before. Parents should therefore be cautioned to observe their children for the appearance of such symptoms and to limit their television time accordingly.

From the standpoint of therapy, television affords an excellent opportunity for the training of an amblyopic eye, since the child will readily consent to wear an occluder before the good eye in exchange for the privilege of being permitted to watch television.

As larger and brighter screens are developed and as other improvements are introduced to perfect the reception, these problems will gradually lose their importance. For the present, the apprehensive layman should be reassured that any visual activity, like any other physical or mental activity, when pursued in moderation and guided by the use of common sense, will not result in any injury or impairment of function.

(The above article is reproduced from "The Eye, Ear, Nose and Throat Monthly" May 1950, page 261).



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## PREVENTATIVE MEDICINE

### GENERAL COMMENT

The health of the command continued to be excellent.

Unless otherwise indicated, reference to disease and injuries in this publication applies to all Class I and Class II installations exclusive of Walter Reed Army Hospital. Rates are calculated on the basis of a thousand mean strength per year. Statistics presently reported by Army medical installations do include those Air Force personnel who are treated or hospitalized at the reporting unit on a casual basis, since reciprocal use of other service's medical installations is made. Air Force statistics are tabulated separately for units having Air Force personnel assigned. (See General Data and Admissions Tables on page 23.

The non-effective rate\* decreased from the July rate of 11.86 to 11.64 for the month of August. Days lost as a result of disease and injury totaled 5,653 during the four week period ending 25 August 1950.

\*Non-Effective Rate --  $\frac{\text{Total Days lost} \times 1,000}{\text{No. of days Average Daily in Period} \times \text{Strength}}$

Non-effective rates indicate the average number of patients in hospital or quarters per thousand mean strength during the report period.

The total admission rate\*\* for disease and injury in August was 317.8, compared to 342.6 during July. Total admission for disease and injury in August was 423. Of this number, 364 admissions were for disease and 59 for injuries. South Post, Fort Myer reported the highest admission rate, and US Army Dispensary, The Pentagon, reported the lowest rate during the current month.

\*\*Admission Rates --  $\frac{1,000 \times 365 \times \text{Number of Cases}}{\text{Mean Strength} \times \text{No. of Days in Period}}$

Admission rates show the number of cases per thousand strength that would occur during a year if cases occurred throughout the year at the same rate as in the report period

August's rate for disease cases is 273.4 for 364 cases. South Post, Fort Myer reported the highest admission rate, and US Army Dispensary, The Pentagon, reported the lowest rate for disease cases.

An injury admission rate of 44.4 per 1,000 per annum for August was reported. This was an increase over the July rate of 38.0. Fort Myer reported the highest rate and US Army Dispensary, The Pentagon, reported the lowest rate for injuries.

There were two deaths reported during the four week period ending 25 August 1950, by units within the Military District of Washington less Walter Reed Army Hospital.

### COMMUNICABLE DISEASE

Common respiratory diseases increased in incidence during the month of August, 1950. The rate for the present month is 92.4 compared to the July rate of 85.6. Fort Belvoir reported the highest rate, and Fort McNair, report the lowest rate. Admission rates for pneumonia (all types) increased during the August report period. The rate being .8 compared with the July rate of .7. There were no cases of scarlet fever reported throughout the month of August.

No appreciable change was noted in the rate for mumps, tuberculosis, rheumatic fever, diarrheal disease, and hepatitis during the four week period ending 25 August 1950.

Pertinent statistical tables may be found on pages 24 and 28.

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# PREVENTATIVE MEDICINE

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## GENERAL DATA 4-week Period Ending 25 August 1950 (Date from WD AGO Form 8-122)

STATION	MEAN STRENGTH			DIRECT ADMISSIONS						Non-Effective Rate	Number of Deaths
	Total	White	Negro	All Causes		Disease		Injuries			
				Cases	Rates	Cases	Rates	Cases	Rates		
Fort Belvoir (A)	8061	6742	1337	187	302.4	159	257.1	28	45.3	9.97	1
(AF)	184	168	16	14	991.8	10	708.4	4	283.4	18.83	-
Fort McNair (A)	940	821	119	20	277.3	16	221.9	4	55.4	11.63	-
(AF)	32	32	0	0	-	0	-	0	-	-	-
Fort Myer (A)	1338	1159	179	51	496.8	42	409.2	9	87.6	9.21	1
(AF)	0	0	0	0	-	0	-	0	-	-	-
So. Post, Fort Myer (A)	1643	1642	1	72	571.2	67	531.6	5	39.6	17.37	-
(AF)	0	0	0	0	-	0	-	0	-	-	-
US Army Dispensary, (A)	3568	3540	28	47	171.7	41	149.8	6	21.9	17.00	-
The Pentagon (AF)	3739	3702	37	63	219.6	59	205.7	4	13.9	13.37	-
All Others (A)	1802	1802	0	46	332.7	39	282.1	7	50.6	5.03	-
(AF)	123	123	0	4	423.9	3	317.9	1	106.0	5.52	-
Total Mil Dist of Wash (A)	17352	15688	1664	423	317.8	364	273.4	59	44.4	11.64	2
(AF)	4078	4025	53	81	258.9	72	230.1	9	28.8	13.28	-
AMC - Med Det (Duty Pers) *	1706	1532	174	61	466.1	57	435.5	4	30.6	6.26	-
AMC - Med Hold Det*	1729	1642	87	140	1055.5	133	1022.7	7	52.8	924.09	7
AMC - Total (Army)	2789	2557	232	169	789.9	162	757.1	7	32.8	424.90	5
AMC - Total (Air Force)	646	617	29	32	645.7	28	565.0	4	80.7	655.41	2
AMC - Total A & AF)	3435	3174	261	201	762.7	190	721.0	11	41.7	468.25	7
Total - Dept/Army Units	20141	18245	1896	592	383.1	526	340.4	66	42.7	688.61	7
Total-Dept/Air Force Units	4724	4642	82	113	311.8	100	276.0	13	35.8	101.09	2
*Army and Air Force Personnel Included											

\*Army and Air Force Personnel Included

## ADMISSIONS, SPECIFIED DISEASES - RATE PER 1000 PER YEAR 4-week Period Ending 25 August 1950 (Date from WD AGO Forms 8-122)

STATION	Common Respiratory Disease	Pneumonia All Types	Pneumonia Atypical	Influenza	Measles	Mumps	Scarlet Fever	Tuberculosis	Rheumatic Fever	Diar-rheal Disease	Hepatitis	Malaria	Psychiatric Disease
Fort Belvoir (A)	142.3	-	1.6	-	4.9	9.7	-	-	4.9	-	1.6	1.6	4.9
(AF)	-	-	-	-	-	-	-	-	-	-	-	-	-
Fort McNair (A)	13.9	-	-	-	-	-	-	-	-	-	-	-	-
(AF)	-	-	-	-	-	-	-	-	-	-	-	-	-
Fort Myer (A)	68.2	-	-	39.0	-	-	-	-	-	-	-	-	-
(AF)	-	-	-	-	-	-	-	-	-	-	-	-	-
So. Post, Fort Myer (A)	126.9	-	-	-	-	-	-	-	-	-	-	-	-
(AF)	-	-	-	-	-	-	-	-	-	-	-	-	-
US Army Dispensary, (A)	40.2	-	-	3.7	-	-	-	3.7	-	-	-	-	-
The Pentagon (AF)	62.8	-	-	7.0	-	-	-	-	-	7.0	-	-	-
All Others (A)	-	-	-	-	-	-	-	-	-	-	-	-	-
(AF)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Mil Dist of Wash (A)	92.4	-	.8	3.8	2.3	4.6	-	.8	2.3	-	.8	.8	2.3
(AF)	57.5	-	-	6.4	-	-	-	-	-	6.4	-	-	-
AMC - Med Det (Duty Pers)*	-	-	-	-	-	-	-	-	-	-	-	-	-
AMC - Med Hold Det*	22.6	7.5	-	-	-	-	-	7.5	-	-	7.5	-	-
AMC - Total (Army)	14.0	4.7	-	-	-	-	-	4.7	-	-	4.7	-	-
AMC - Total (Air Force)	-	-	-	-	-	-	-	-	-	-	-	-	-
AMC - Total (A & AF)	11.4	3.8	-	-	-	-	-	3.8	-	-	3.8	-	-
Total Dept/Army Units	81.5	.6	.6	3.2	1.9	3.9	-	1.3	1.9	-	1.3	.6	1.9
Total Dept/Air Force Units	49.8	-	-	5.5	-	-	-	-	-	5.5	-	-	-

\*Army and Air Force Personnel Includes

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## PREVENTATIVE MEDICINE

## VENEREAL DISEASE

Venereal Disease rate among units with the Military District of Washington decreased during the August report period.

The rate for August 1950 was 7.51, an increase over the July rate of 19.36. A total of 10 cases were reported for the four week period ending 25 August 1950. Of this total 9 were reported by Fort Belvoir, and 1 for Fort Myer.

During the report period, white personnel incurred 2 of the reported number of cases, with a rate of 1.66 and 8 were incurred by negro personnel, with a resulting rate of 62.67 per 1000 troops per annum.

In order to enable non-professional personnel to more intelligently understand the rates of cases to personnel on duty at each designated station, we have undertaken to report the number of cases per 1000 men for this report period (August) in addition to the rate per 1000 per annum which is not always clearly understood and is often misinterpreted.

Pertinent statistical tables and charts may be found on pages 26, 27, 28 and 29.

## NEW VENEREAL DISEASE CASES - EXCL EPTS - JUNE, JULY AND AUGUST 1950

STATION	Rate per 1000 per year	Rate per 1000 per year	Rate per 1000 per year	Cases per 1000 Troops
	JUNE 50	JULY 50	AUGUST 50	AUGUST 50
Fort Belvoir	21.99	32.09	14.55	1.116
Fort McNair	-	16.48	-	-
Fort Myer	-	-	9.74	.747
South Post, Fort Myer	6.58	-	-	-
US Army Dispensary, Pentagon	-	-	-	-
All Others	-	30.96	-	-
Total Mil Dist Wash Units	11.28	19.36	7.51	.576
Army Medical Center - Total	7.42	-	9.02	.692
Total Dept/Army Units Mil Dist of Washington	10.75	16.74	7.77	.595

CHART 1

ADMISSION RATES BY MONTH, ALL CAUSES, COMMON RESPIRATORY DISEASE AND INJURY  
MDW RATE PER 1000 TROOPS PER YEAR

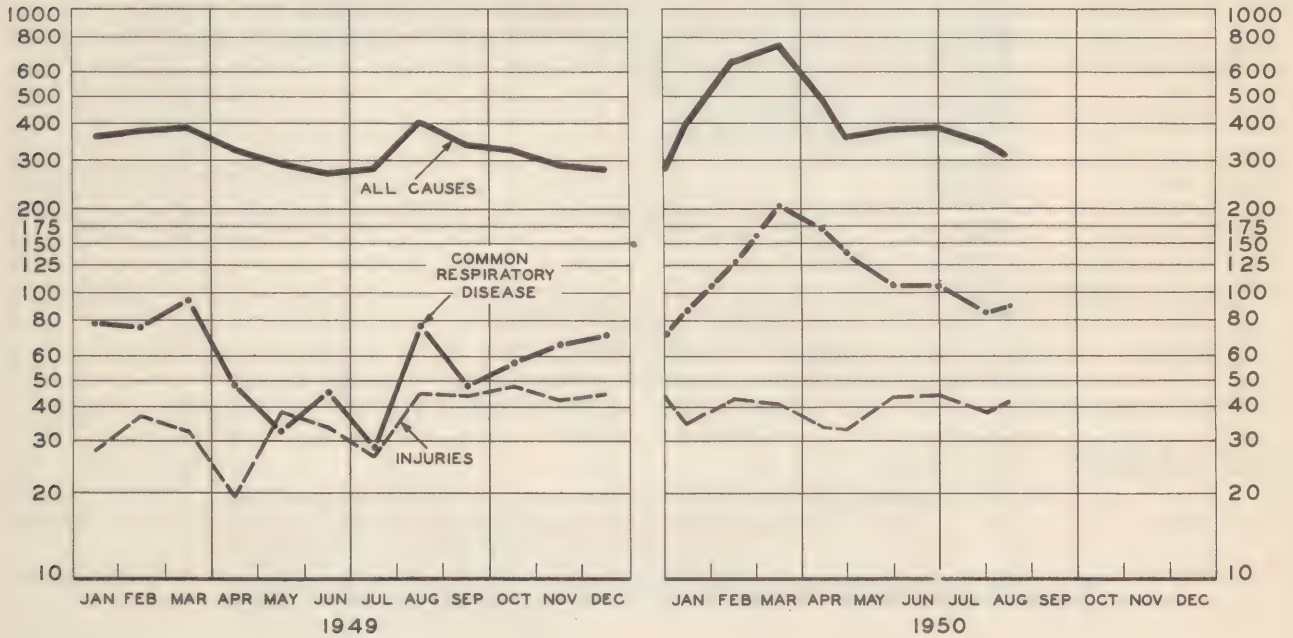
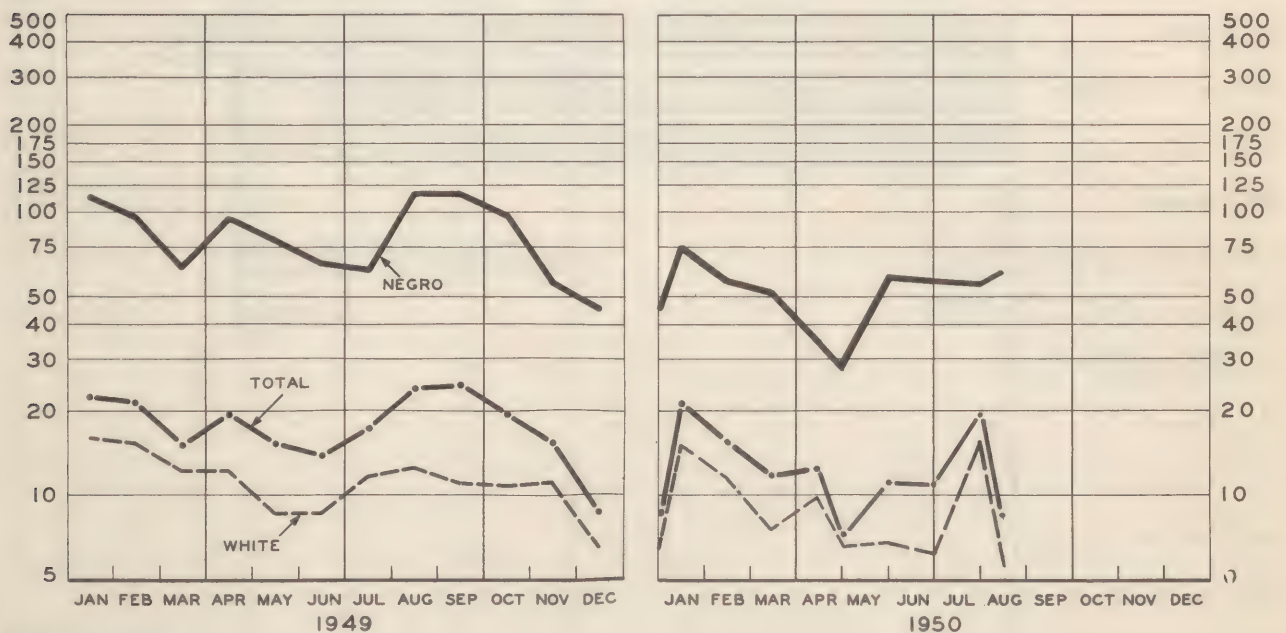


CHART 2

ADMISSION RATES BY MONTH VENEREAL DISEASES MDW INCL. ARMY MEDICAL CENTER  
RATES PER 1000 TROOPS PER YEAR  
INCLUDES ALL CASES REPORTED ON WD AGO 8-122 EXCEPTING THOSE EPTS

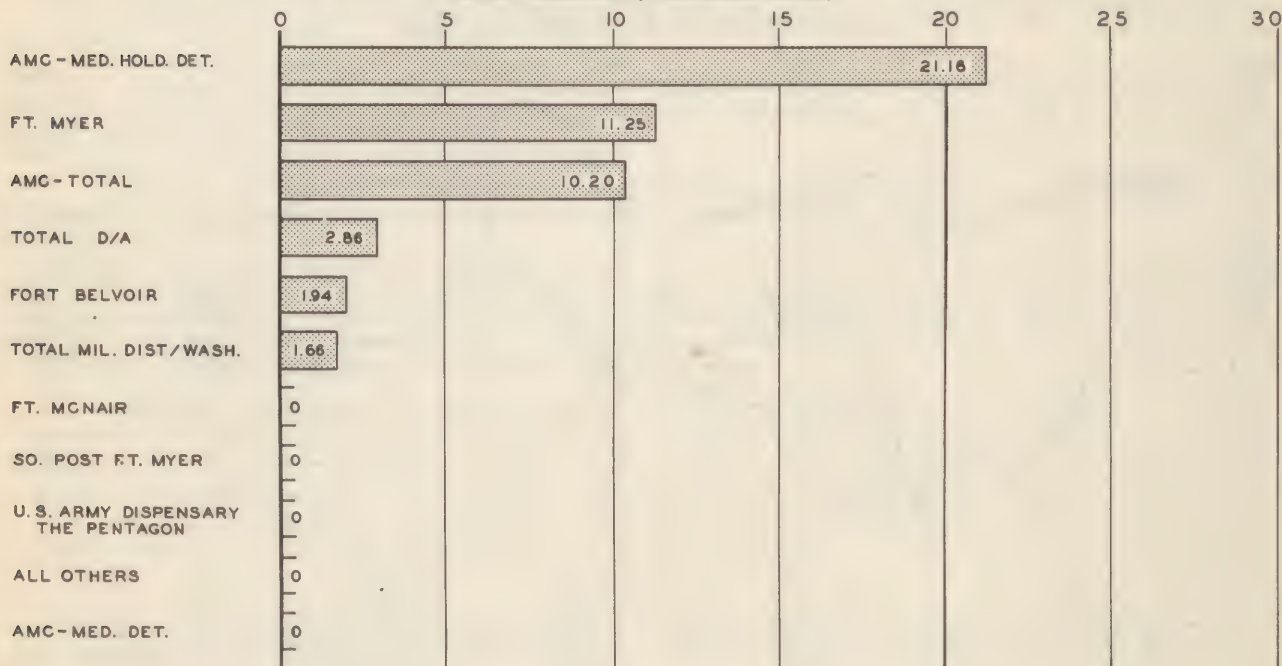




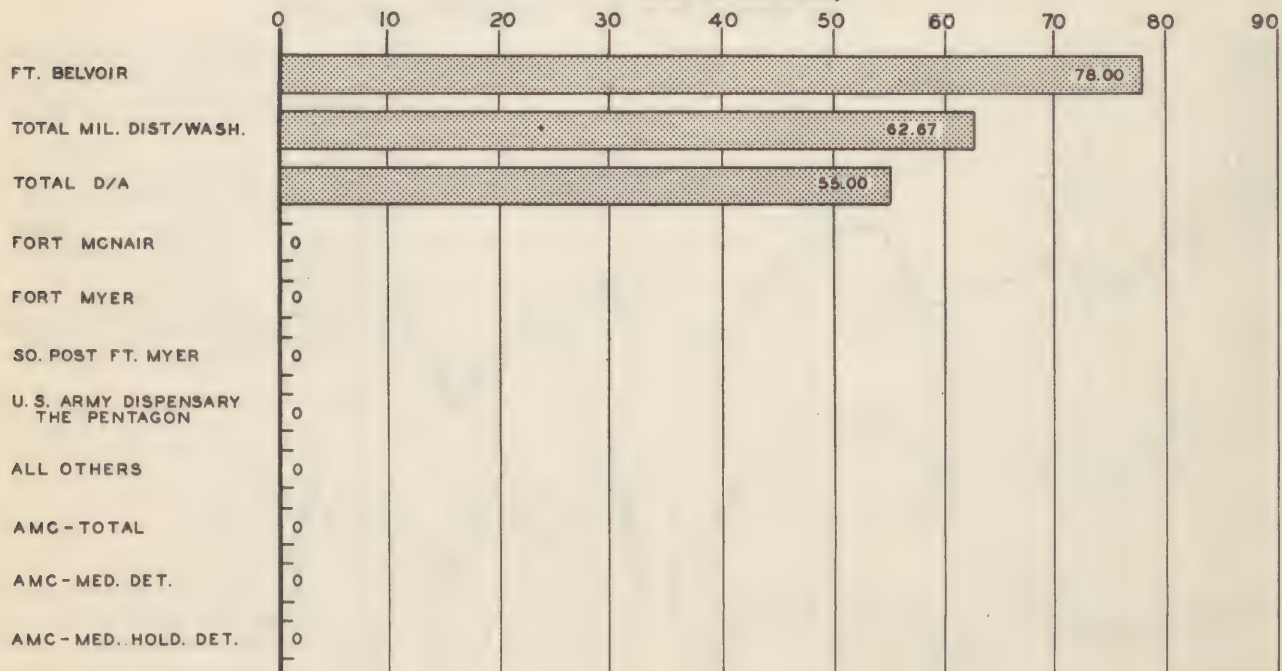
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## PREVENTATIVE MEDICINE

### VENEREAL DISEASE RATE PER 1000 TROOPS PER YEAR 4 WEEK PERIOD ENDING 25 AUGUST 1950 WHITE PERSONNEL (CHARGEABLE CASES)



### VENEREAL DISEASE RATE PER 1000 TROOPS PER YEAR 4 WEEK PERIOD ENDING 25 AUGUST 1950 NEGRO PERSONNEL (CHARGEABLE CASES)



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# PREVENTATIVE MEDICINE

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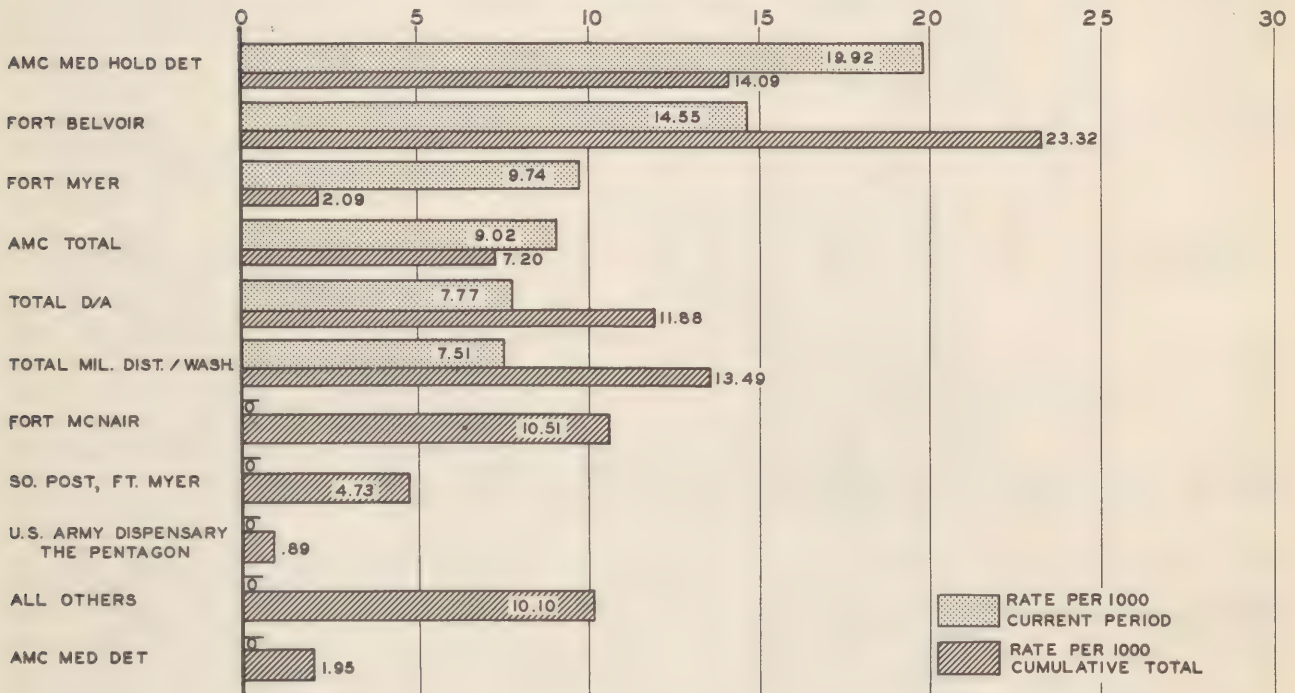
## VENEREAL DISEASE RATES FOR US\*

(All Army Troops)

	JUNE 1950	JULY 1950	AUGUST 1950
First Army Area	12	16	16
Second Army Area	17	21	18
Mil District of Washington	10	16	8
Third Army Area	20	24	20
Fourth Army Area	15	14	24
Fifth Army Area	10	13	18
Sixth Army Area	17	17	26
TOTAL United States	15	18	20

\*Compiled in the Office of the Surgeon General and Includes US Army Hospitals

## VENEREAL DISEASE RATES PER 1000 PER YEAR FOUR WEEK & CUMULATIVE TOTALS ENDING 25 AUGUST 1950 TOTAL WHITE & NEGRO PERSONNEL (CHARGEABLE CASES)



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**RESTRICTED****PREVENTATIVE MEDICINE****CONSOLIDATED MONTHLY VENEREAL DISEASE STATISTICAL REPORT**

For the Four Week Period Ending 25 August 1950

(Data from WD AGO 8-122) (Chargeable Cases)

STATION	R A C E	Mean Strength	Number of Cases-EPTS Not Included				Rate per 1000 Troops per Annum	Total Days Lost From Duty (Old & New Cases)
			Syphilis	Gonorrhea	Other	Total		
Fort Belvoir	W	6724	0	1	0	1	1.94	0
	N	1337	0	8	0	8	78.00	1
	T	8061	0	9	0	9	14.55	1
Fort McNair	W	821	0	0	0	0	-	0
	N	179	0	0	0	0	-	0
	T	940	0	0	0	0	-	0
Fort Myer	W	1159	0	1	0	1	11.25	0
	N	179	0	0	0	0	-	0
	T	1338	0	1	0	1	9.74	0
South Post, Fort Myer	W	1642	0	0	0	0	-	0
	N	1	0	0	0	0	-	0
	T	1643	0	0	0	0	-	0
US Army, Dispensary, The Pentagon	W	3540	0	0	0	0	-	0
	N	28	0	0	0	0	-	0
	T	3568	0	0	0	0	-	0
All Others	W	1802	0	0	0	0	-	0
	N	-	0	0	0	0	-	0
	T	1802	0	0	0	0	-	0
Total Mil Dist of Wash	W	15688	0	2	0	2	1.66	0
	N	1664	0	8	0	8	62.27	1
	T	17352	0	10	0	10	7.21	1
Army Medical Center-Total	W	2557	0	2	0	2	10.20	56
	N	232	0	0	0	0	-	0
	T	2889	0	2	0	2	9.02	56
Total Dept/Army Units	W	18245	0	4	0	4	2.86	56
	N	1896	0	8	0	8	55.00	1
	T	20141	0	12	0	12	7.77	57

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# DENTAL SERVICE

## DENTAL SERVICE - FOUR WEEK PERIOD ENDING 25 AUGUST 1950

STATION	Military Civilian				Sit-tings	Amal-gam	Oxy and Amal	Sili-cate	In-lays	Bridges	Bridge Repair	Crowns	Dentures			Extrac-tions	Calcu-lus Removed	X-Rays	Examin-ations
	Men	Duty Days	Men	Duty Days									Full	Par-tial	Re-pair				
Fort Belvoir	9	225	1	23	1611	436	356	120	0	12	7	3	15	18	13	545	139	566	972
Fort McNair	2	69	0	0	597	248	173	39	0	0	1	0	4	19	4	48	43	117	140
Fort Myer, Va.	3	60	0	0	871	220	52	52	2	0	0	2	2	11	5	85	23	508	164
South Post, Fort Myer	2	62	0	0	288	255	77	29	0	0	2	0	1	2	4	24	16	143	44
US Army, Disp.	8	203	1	23	2995	542	128	134	1	2	13	7	3	30	15	93	257	940	1739
All Others	1	23	0	0	158	77	57	57	0	0	1	0	8	0	0	13	9	27	58
Total - MDW	25	642	2	46	6520	1778	843	431	3	14	24	12	33	80	41	808	487	2301	3117

# VETERINARY SERVICE

## POUNDS MEAT AND MEAT FOOD AND DAIRY PRODUCTS INSPECTED AUGUST 1950 (Data obtained from WD AGO Forms 8-134)

STATION	CLASS * 3	CLASS * 4	CLASS * 5	CLASS * 6	CLASS * 7	CLASS * 8	CLASS * 9	TOTAL
Fort Leslie J. McNair		74,963	117,094		173,824		55,685	421,566
Fort Belvoir, Virginia		347,131	325,613		802,527		339,875	1,910,891
Alexandria Field Buying Office		473,972	88,362	554,978		95,745	80,127	1,197,439
Fort Myer, Virginia		155,670	181,608	164	336,655	11,297	155,726	841,120
Cameron Station, Alexandria, Va.		198,568	94,494	861	284,218	6,170	74,645	658,956
Mil Dist/Washington Vet Det.								749,193
The Pentagon						300,220		300,220
TOTALS	749,193	1,250,304	807,171	556,003	1,597,224	413,432	706,058	6,079,395
REJECTIONS:								
Insanitary or Unsound								
Alex. Field Buying Office		229					1,866	2,095
Cameron Station, Alex. Va.		100						100
Mil Dist/Wash Vet Det.	110							110
Not type, class or grade								
Fort Leslie J. McNair		1,037						1,037
Alex. Field Buying Office		37,800						37,800
Mil Dist/Wash Vet Det	53,654							53,654
TOTAL REJECTIONS	53,764	39,166					1,866	94,796

\*Class 3 - Prior to Purchase  
 \*Class 4 - On delivery at Purchase  
 \*Class 5 - Any Receipt except Purchase  
 \*Class 6 - Prior to Shipment

\*Class 7 - At Issue  
 \*Class 8 - Purchase by Post Exchange, Clubs, Messes or Post Restaurants  
 \*Class 9 - Storage

# OUTPATIENT SERVICE

## OUTPATIENT SERVICE

Consolidated statistical data on outpatient service, Military District of Washington, less Walter Reed Army Hospital, are indicated below for the four - week period ending 25 August 1950:

ARMY:	NON-ARMY:
Number of Outpatients . . . . . 3,235	Number of Outpatients . . . . . 5,942
Number of Treatments . . . . . 16,863	Number of Treatments . . . . . 17,734
NUMBER OF COMPLETE PHYSICAL EXAMINATIONS CONDUCTED . . . . .	2,841
NUMBER OF VACCINATIONS AND IMMUNIZATIONS ADMINISTERED . . . . .	7,358

# HOSPITAL MESS ADMINISTRATION

## HOSPITAL MESS ADMINISTRATION

STATION	MAY 1950	JUNE 1950	JULY 1950	AUGUST 1950
FORT BELVOIR				
Income per Ration	\$1.026	\$1.05	\$1.03	\$1.1074
Expense per Ration	1.073	1.14	1.09	1.0177
Gain or Loss	-.047	-.09	-.06	+.0897



# DEPARTMENT OF DEFENSE

## CIVILIAN EMPLOYEES HEALTH SERVICE PROGRAM

### METROPOLITAN AREA OF WASHINGTON

ROLE OF THE NURSE IN HEALTH SERVICE  
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CHIEF NURSE, MAIN NAVY DISPENSARY  
CIVILIAN EMPLOYEES HEALTH SERVICE

The role of the nurse in protecting the health of office workers is far more important than has been generally recognized. To appreciate the role of the nurse in a Health Unit, it is necessary to visualize her and the medical officer as a team which works with personnel and with the employee in an effort to discover and remove potential health problems and hazards before they cause accident or serious illness. In the nurse's unique role it is often her privilege, due to her professional status and working relationships, to interpret the aims of the Health Service to both management and worker alike, in terms of the interests which are of paramount importance to each.

The duty of a nurse ministering to the needs of office workers is to carry on a continuous employee-health program, the purpose of which is to promote optimal health, prevent disease, reduce absenteeism, and thereby increase production by enabling the employee to make a better adjustment between himself and his environment. Anything the nurse may do to assist in the solution of the employee's health problem is by that very token improving the health and welfare of the employee, who in turn is better able, then, to fulfill his obligation to his job.

The nurse plays a large part in reduction of man hours lost, reduction in costs of operation, increased production, promotion of harmonious working relationships and good morale. There are, however, some people who have the mistaken idea that the nurse functions only in the event of illness. The nurse functions also in a program, the keystone of which is the prevention of illness and injury rather than just the "repair" of the victims. Today, management does not wait for a man to fall through an elevator shaft or to lose a hand before adequate guards are installed and efforts are made to procure intelligent cooperation of the worker in their use. The same reasoning applies with regard to the employee's health. The nurse does not wait for the employee to become ill before rendering skilled service. Nursing today includes many specialties of which the art of prevention, in the government agency as well as elsewhere, is an important phase.

Many of the complaints brought to the attention of the nurse such as headache, "upset stomach", excessive thirst, general malaise, etc., may be early warning signs of some serious illness. By being on the alert, the nurse is in a position to bring these symptoms to the attention of the medical officer or private physician and getting the employee under medical care before he becomes seriously ill.

The professional interest shown by the nurse towards the employee, who comes to the Health Unit for assistance, is highly important. A follow-up should be made by someone in whom the employee has confidence; someone whom he can see readily; someone who will help to steer him through his problem; and someone to whom, because of intelligent dealing with his situation, he will bring other problems concerning health, because he knows that his confidence will always be respected and he will be given the sound advice which he seeks. Who else is this but the nurse?



# CIVILIAN EMPLOYEES HEALTH SERVICE PROGRAM

## MENTAL HEALTH

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During recent years there has been an increasing popular interest in psychiatry. World War I and II gave an impetus to this interest. However, with this arose the general assumption that psychiatry could solve all human problems. When psychiatry fails to measure up to this impossible standard antagonism arises. Hence it is well to call attention to the fact that up to date we have not solved the problem of mental disease. Psychiatry as a specialty of medicine is primarily concerned with the problems of mental health and mental disease. Like other branches of medicine it started by recognition of serious disorders, then attempted to find cures, developed more or less successful methods of treatment, then turned to the prevention of mental disease.

Since World War II, the interest has been directed toward a program of prevention of mental illness and the improvement of mental health. This presents a big problem as no single common factor is the cause of mental disease. Under this terminology we include illnesses such as those resulting from organic as well as those that are attributed as due to psychogenic factors. The deviations that occur following organic conditions such as infections, injuries and exogenous toxins can be said to be preventable. However, up to the present time we have been unable to prove that the so-called psychogenic mental illnesses are preventable.

The numerous studies in human personality has shown us indications that the mental health of the individual is dependent upon his own constitutional make-up plus the manner in which he has been influenced by his experiences. Although two individuals may be exposed to similar emotional experiences, the impact upon the personality structure will not be the same. One individual may become withdrawn, another aggressive and yet another develop physical complaints. It is no wonder that we say "I am today what I am because of my yesteryears."

Because of our past experiences we come to our employment period with varying states of mental health. Recognizing this fact most industries under the stress of World War II found that a counselling service was of value in that it permitted the employee to talk over his problems with an individual who was objective in attitude. Although all counselors were not well trained or carefully selected, the fact that the employee had some one with whom he could discuss his problems and air his views, produced satisfying results in increased production and better job adjustment. Regrettably much of this type of service was curtailed when the need for high production was eliminated.

Since this type of counselling service is no longer available, the employee seeks the aid of mental facilities available to him, the medical services at place of employment or community resources. We hear increasing number of complaints that the worker is fatigued or that he is suffering from some vague physical symptoms. When questioned we find that his fatigue is not the result of physical effort but instead it is mental fatigue, due to emotional stress, worry or boredom or poor morale in the working situation. In many individuals who express physical complaints, we again find that emotional factors play a dominant part in their condition. The medical services available at the workers' place of employment can be of service to both employer and management. By being an attentive listener the physician may alleviate the emotional tension and determine the possible causes of the complaint. We may find that the employee is not equal to his responsibilities, has little or no understanding of the significance or the importance of his work in relationship to the total function of his office. In others, the condition maybe brought about by unsatisfactory working conditions, poor leadership and poor office morale. The physician, to be effective in helping such an employee, should have established a good working relationship with management so that the necessary corrective steps will be taken, be it referral for specialized medical care or change in working conditions.

At medical installations where the services of a psychiatrist are available, a more comprehensive evaluation of the problem presented can be made. Again the psychiatric service is of great value when a good working relationship has been established with management as then the recommendations will be accepted as being made in the best interest of the employee as well as the organization. The psychiatrist can be of further value to employee and management alike by encouraging the training of all supervisory personnel in a closer interpersonal relationship with their employees so that when evidence of maladjustment appears immediate corrective measures will be taken.



